



Senior Research Intelligence

Scientific Impact, Innovation and Competitiveness—A Data Analytics and Systems Overview

El Calto

National User Facility Organization (NUFO)
Lawrence Livermore National Lab
June 2016
Livermore, CA

Empowering Knowledge

Global R&D Challenges

**Grand Challenges Are Multidisciplinary
and Global**

**Climate
Chang**

Energy

**Poverty
Reduction**

**Aging
Populati
ons**

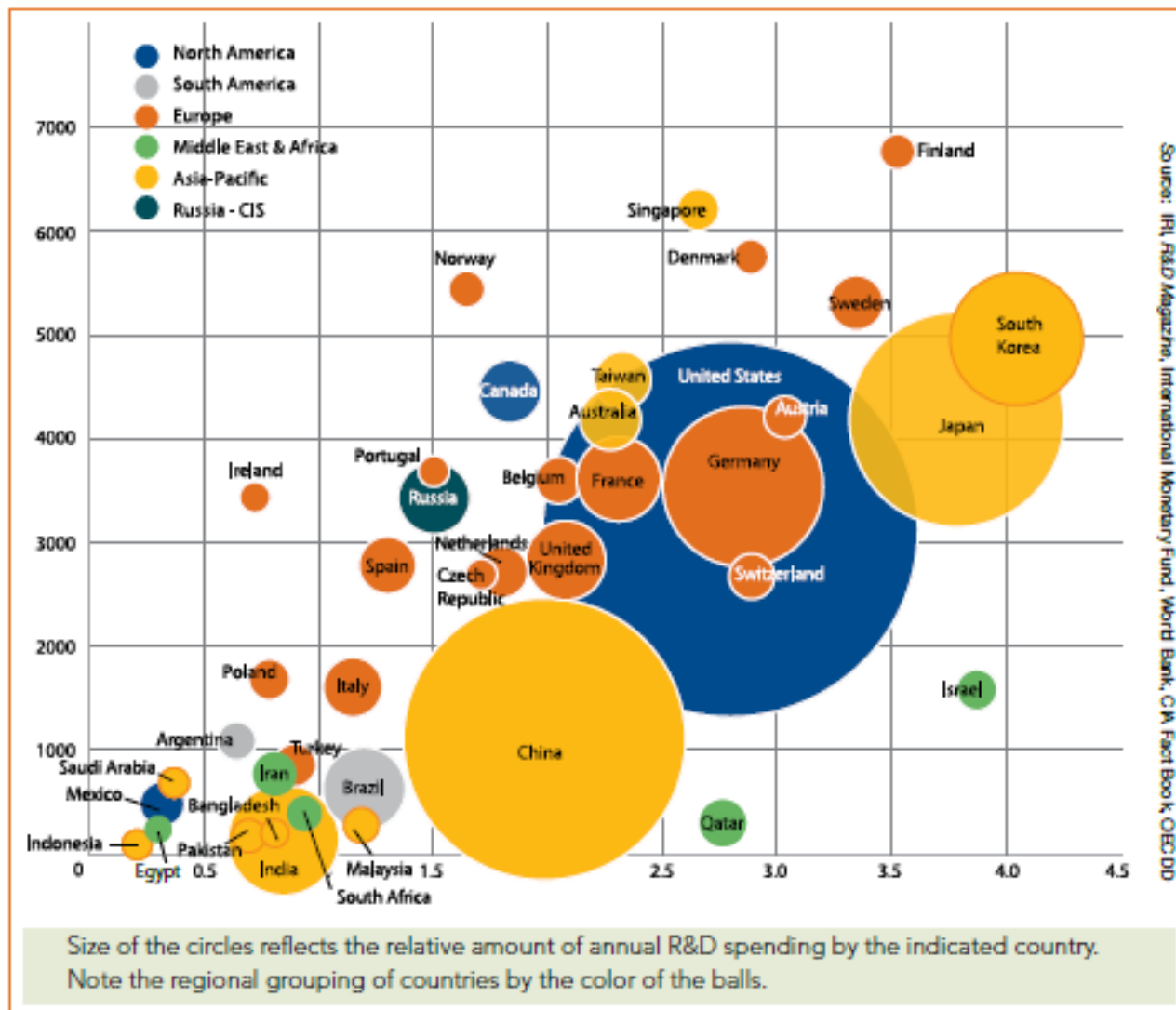


Cybersecurity

**Food and
Water Security**

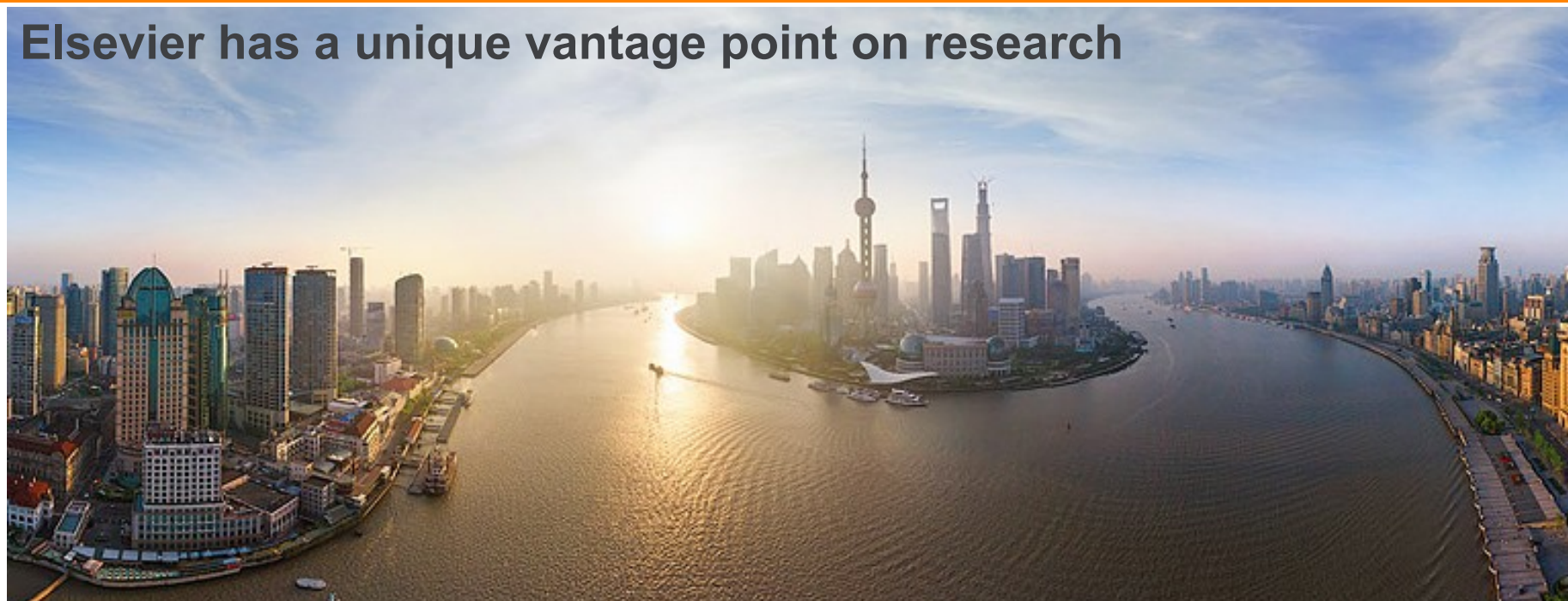
Environment

2015 Global R&D Expenditures



- The world as a whole spent over \$1.88T in R&D in 2015
- In 2015 South Korea spent \$74B, 4.0% of its GDP, on R&D. It now spends more than any EU country except Germany, with a much smaller population
- India's investments in R&D were the sixth-highest globally. Three years ago they were the tenth-highest spender.
- US R&D spending in 2015 was up 2.3% over the prior year to \$497B, while China's spending rose 7.7% to \$372B

Elsevier has a unique vantage point on research



Each year

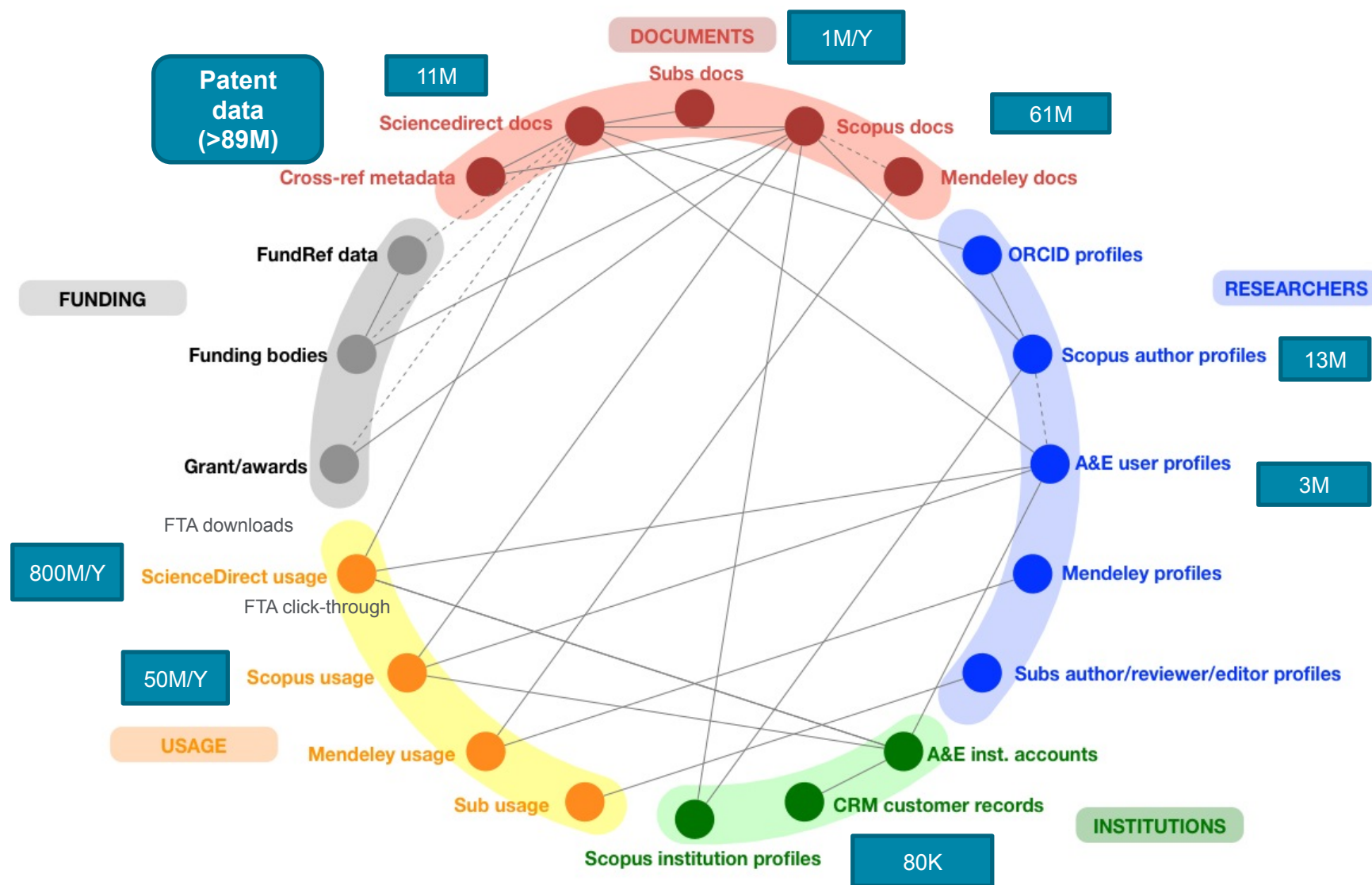
- 1 million article manuscripts received by ~2,000 journals (all offer Open Access options)
- 350,000 new articles published, in addition to 11M existing articles
- 2,000 new books published

Primary
publishing

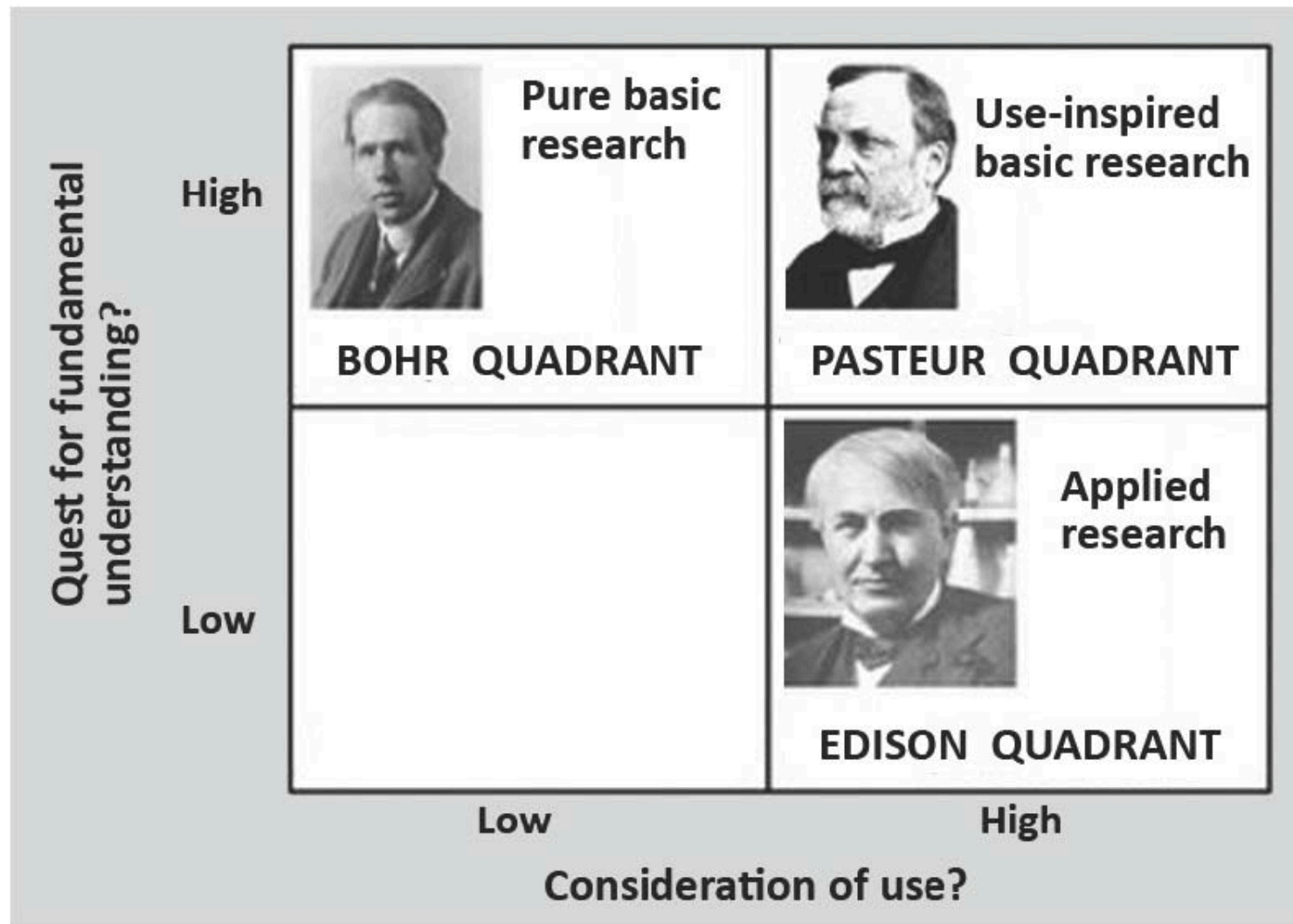
- ScienceDirect: 800M digital article downloads
- Scopus: 63M records, 22,000 titles, 5,000 publishers, 700M citations
- SciVal: 140 trillion metrics values—HPCC supercomputing cluster
- Pure: current research information system: >200,000 researchers supported
- Mendeley: 3M users globally
- Grants: 7,000 sponsors, 20,000+ active opportunities, ~5M awarded grants
- Patents: >93m records, 100 patent offices
- Compounds: 22M compounds, 35M reactions; 3.3M molecular facts
- Drug information: 16k branded drugs; 12k generic drugs

Derived and
aggregated data

What Data Do We Bring to the Table?

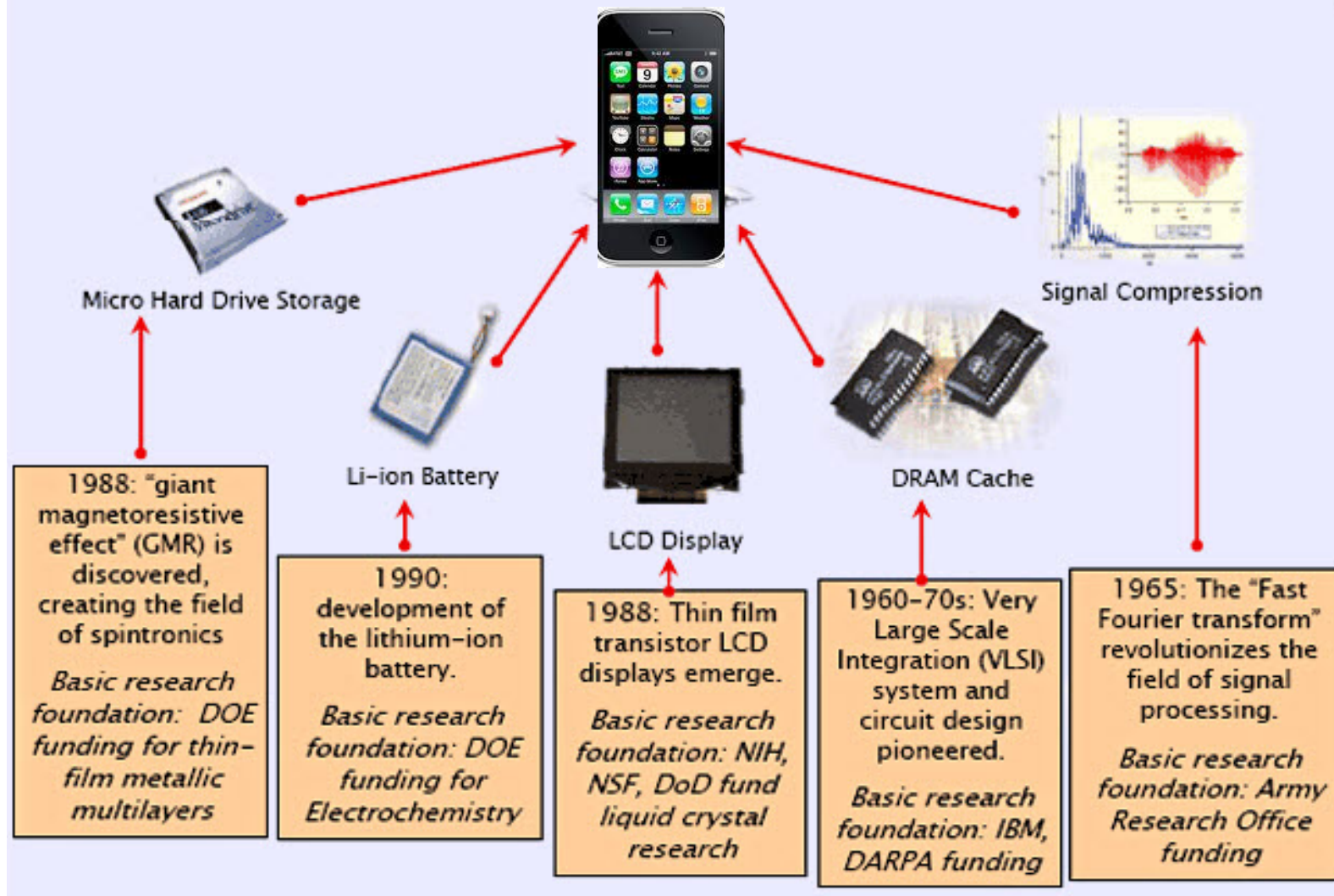


Pasteur's Quadrant—Basic and Applied Research



Impact of Basic Research on Innovation--Smartphones

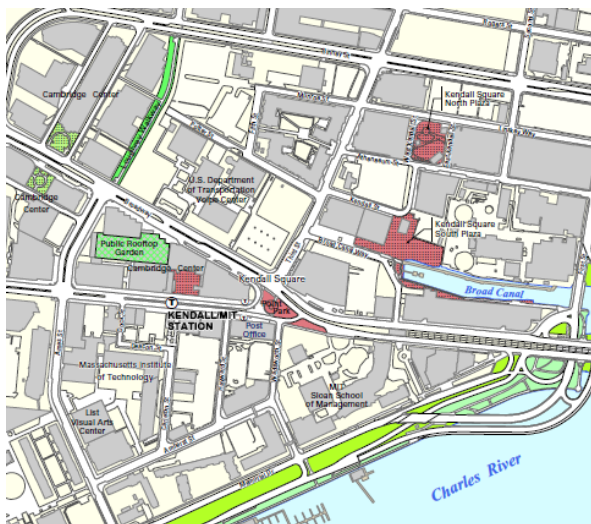
Impact of Basic Research on Innovation



University Impacts on Regional Economies are both Direct and Indirect

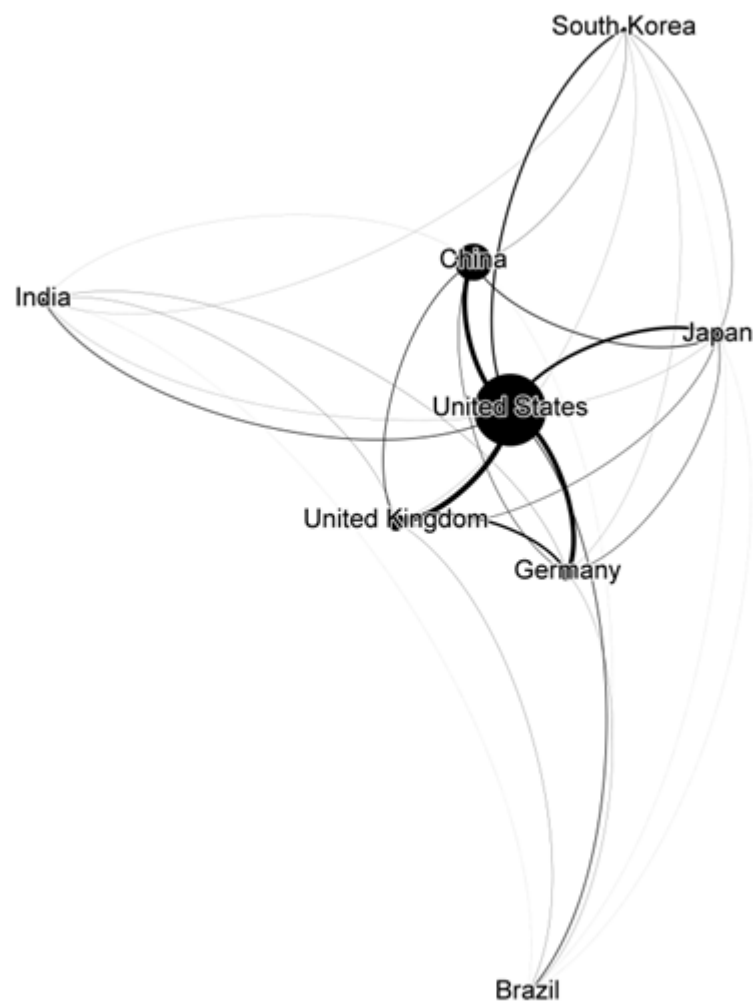


**Massachusetts
Institute of
Technology**



- MIT graduates have started over 25,800 currently active companies with annual global sales of \$2T.
- If these companies formed an independent nation, the revenues would make that nation the 17th-largest in the world.
- 26% of revenues from all Massachusetts firms are derived from the 6,900 companies in the state founded by MIT graduates, generating an estimated 985,000 jobs. These firms generate \$164B in annual sales.
- California has an additional 526,000 jobs from 4,100 MIT-alumni firms, followed by New York with 231,000 jobs.
- Over 30% of foreign MIT students found companies, more than half of which are located in the United States.
- MIT also has direct impacts both formally and informally on cluster formation in Greater Boston Area, including on formation and rapid growth of Kendall Square, housing over 150 biotech and infotech companies in a previously rundown post-industrial area of Cambridge
- Formal entrepreneurial programs at MIT were started in the 1970's largely due to alumni efforts to organize them.
- Over 30% of these companies are manufacturing firms, compared to 11% nationwide, with a high propensity to export to global markets

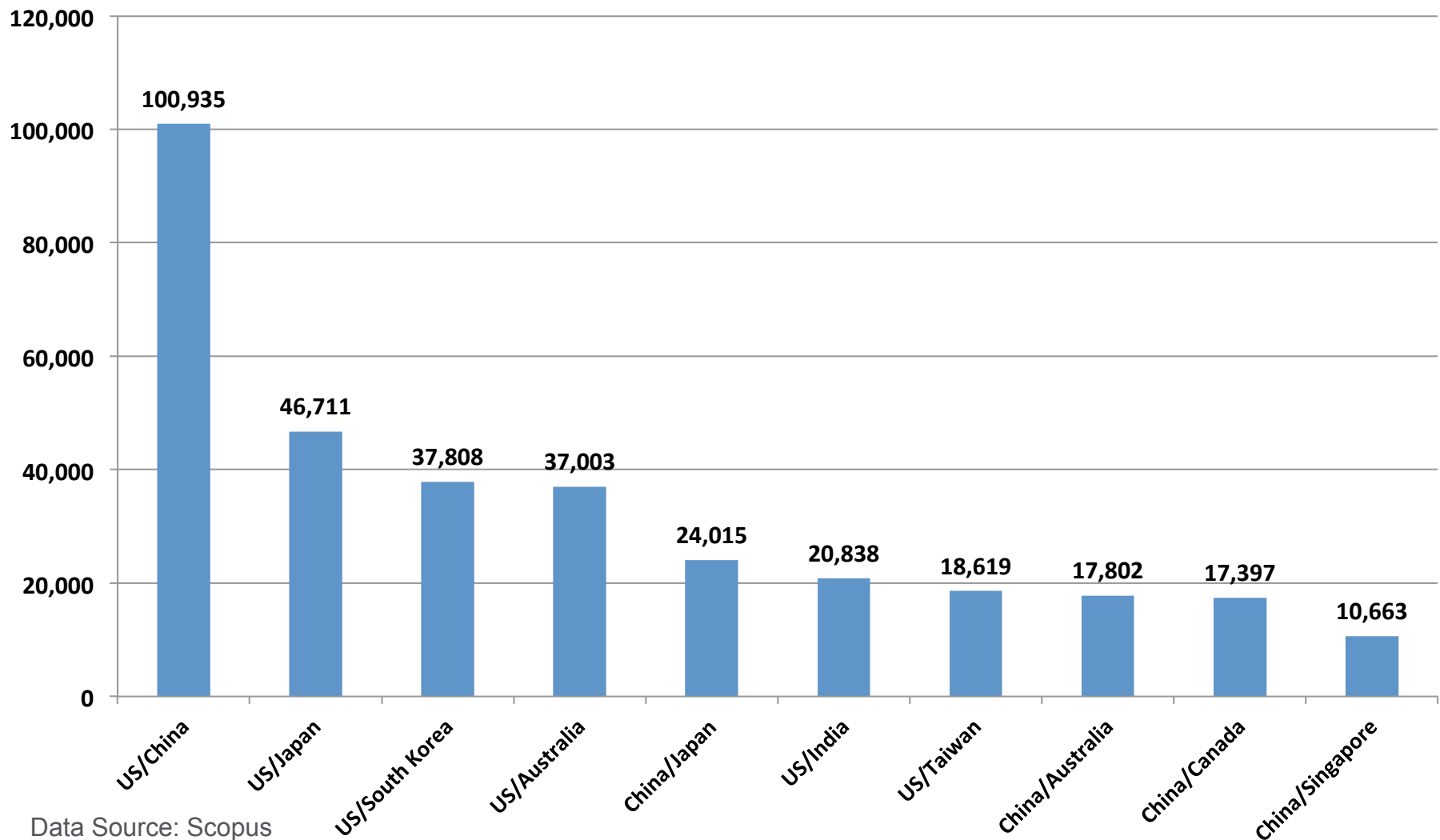
Global Co-Authorship Patterns



Data Source: Scopus

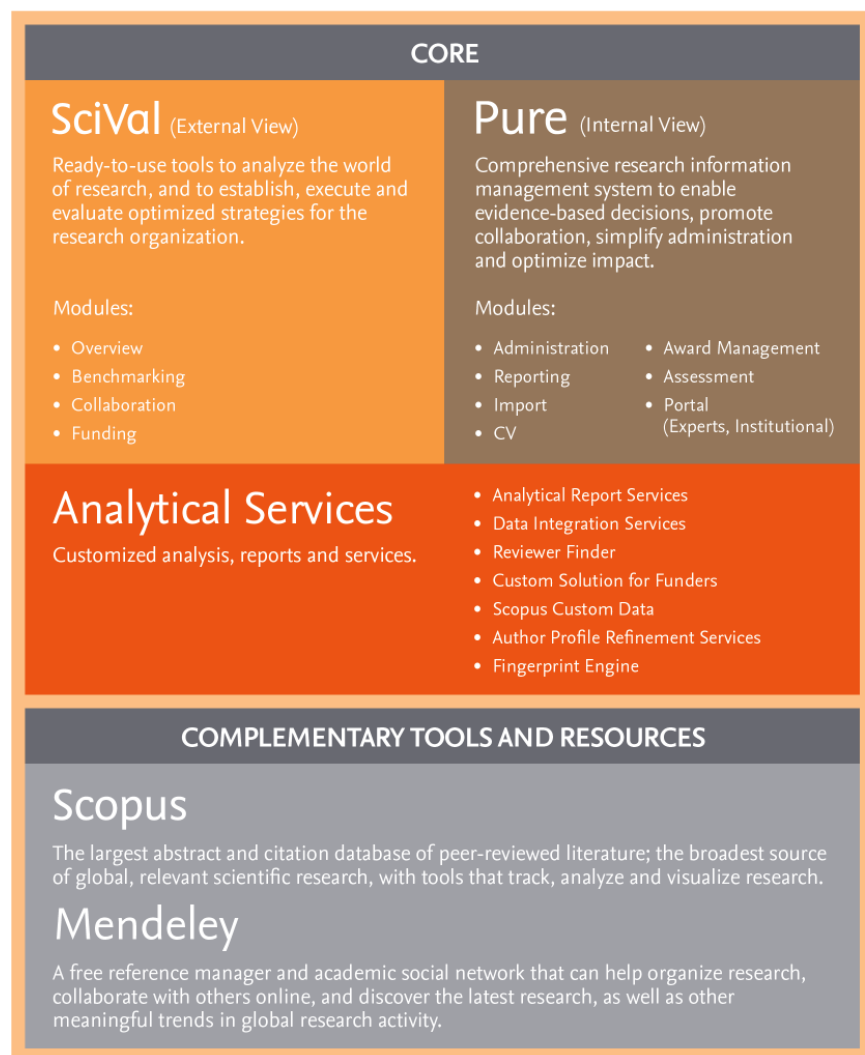
Pacific Rim Co-Authorship Patterns

Top 10 Pacific Rim Collaborations, 2008-2012



Elsevier Research Intelligence portfolio

What we offer



What we support

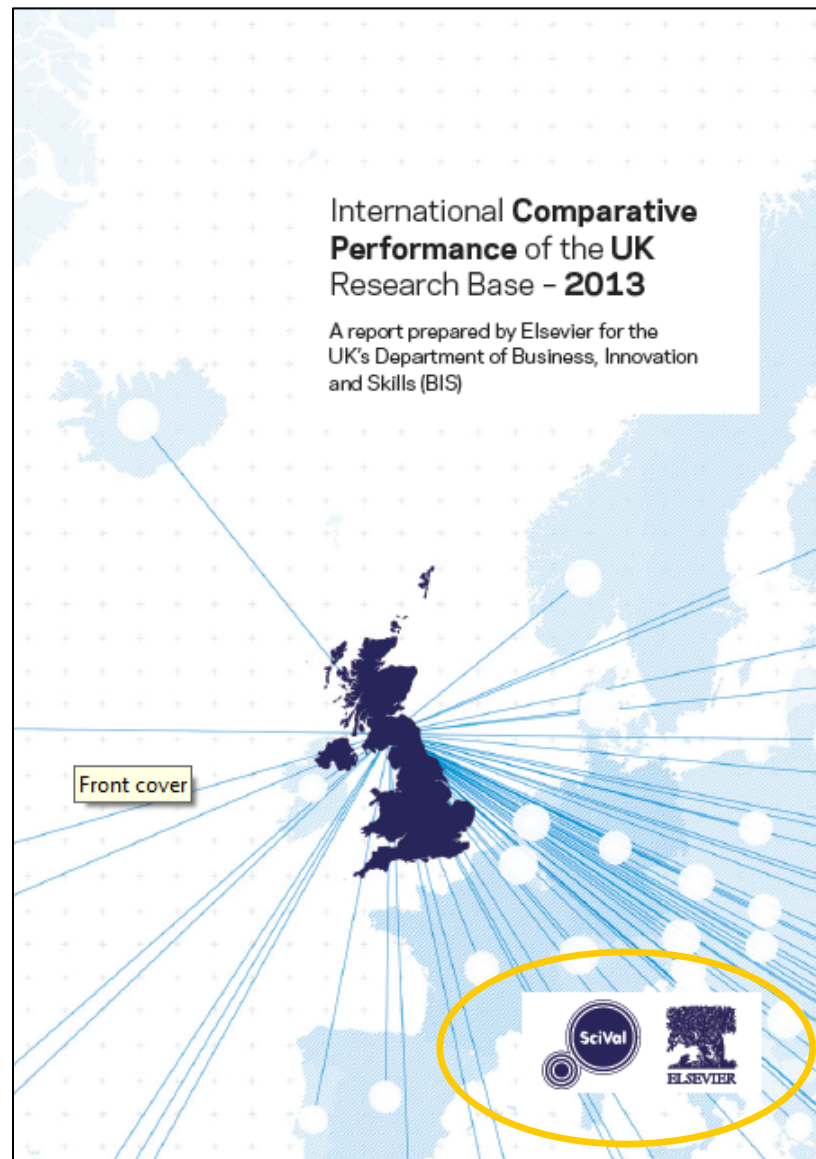


Who we support

- **Research Institutions**
- **Funders**
- **Policy makers**
 - Provosts
 - Vice Chancellors Research
 - Research Administrators/ Development Professionals
 - Researchers
 - Research Managers
 - Department Heads
 - Librarians
 - Students
 - Communications Professionals
 - Technology Transfer Officers
 - Grant Managers
 - Legislators
 - Economic Development Officers

Analytics Services: Custom Analysis at Scale

Evaluating UK Research Performance: BIS Report



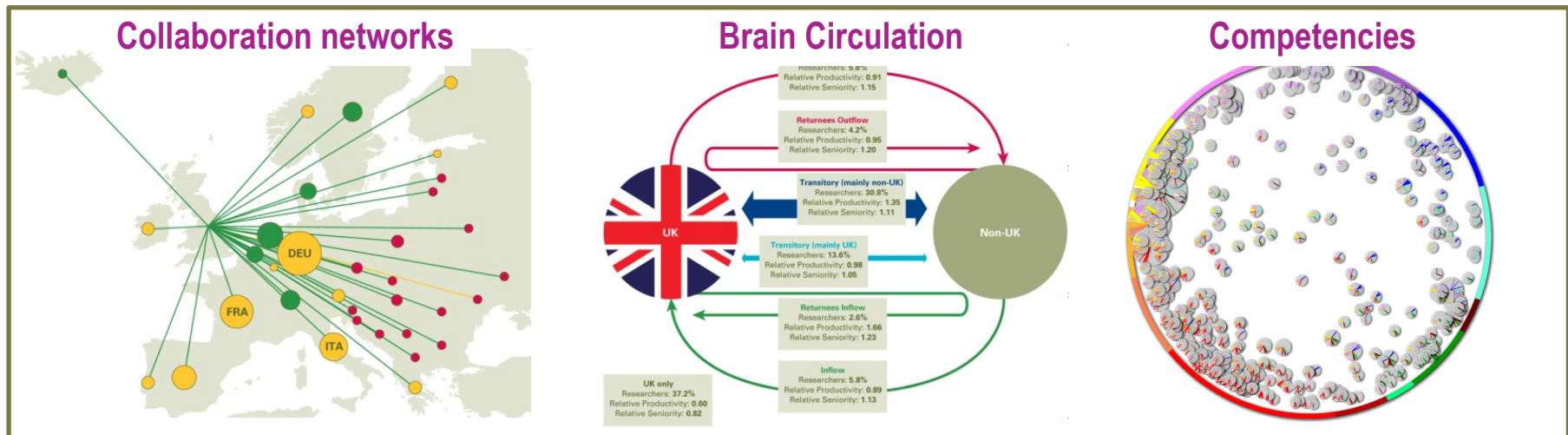
See: <https://www.gov.uk/government/publications/performance-of-the-uk-research-base-international-comparison-2013>

BIS report inputs: Quantitative

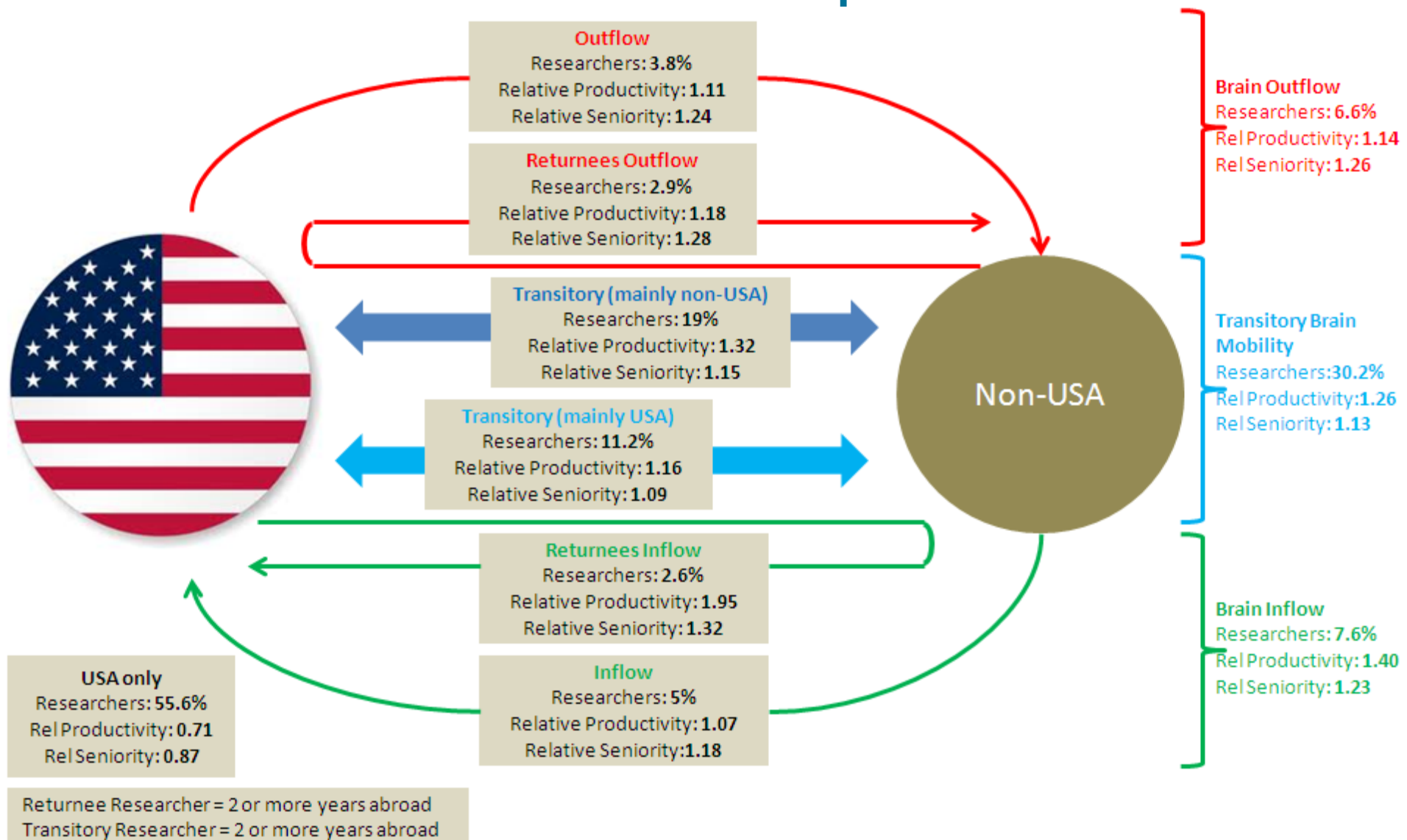
Data

- Scopus
 - ScienceDirect usage
 - OECD
 - HESA
 - WIPO
 - AUTM
 - HEFCE
- 112 database tables, 2.3 Gigabytes
 - 20MM+ articles, 200MM+ citations, 3B downloads
 - 45MM indicator values
 - Largest indicator: 6MM+ values

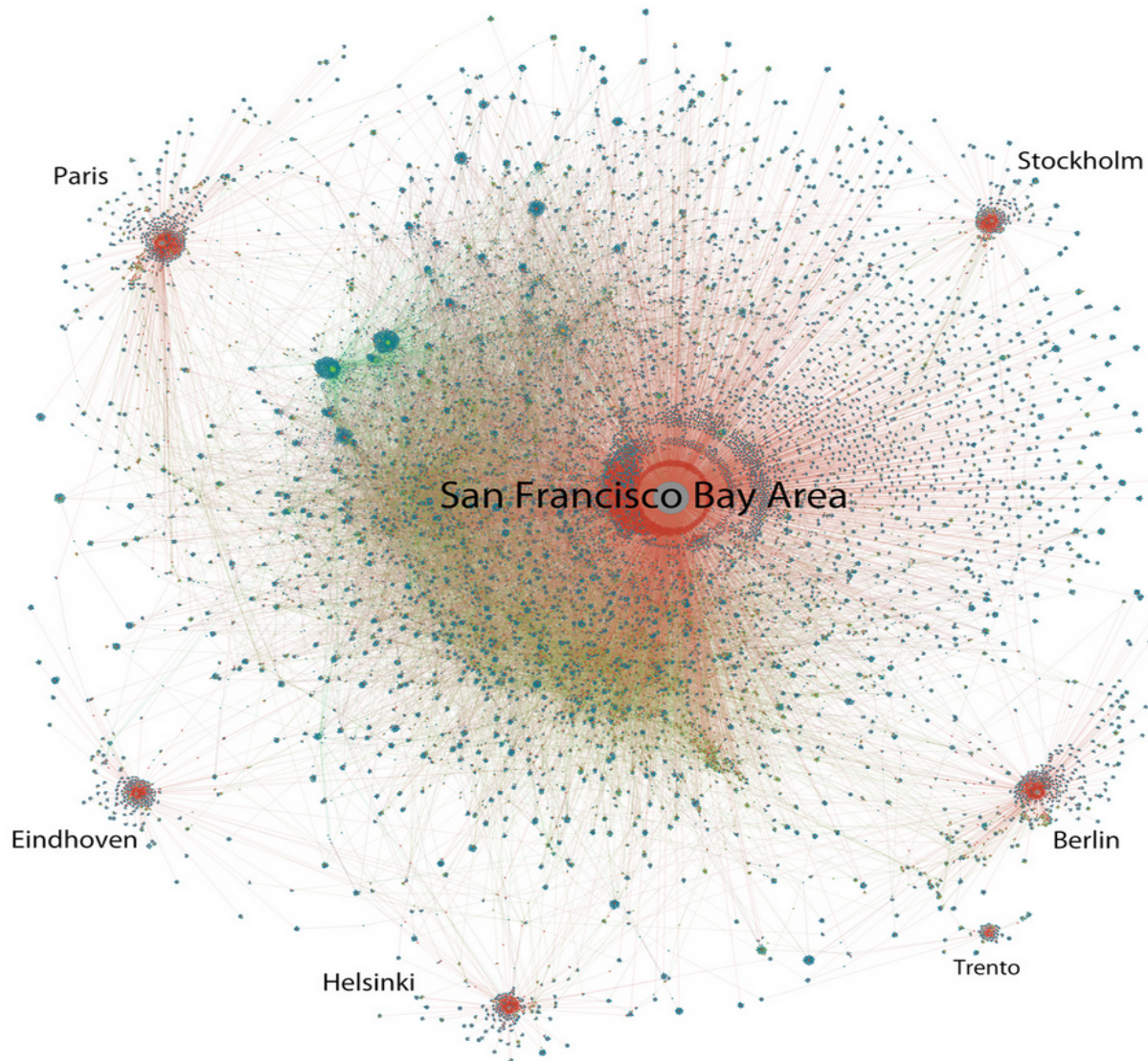
Analyses



Monitor brain circulation—US map



Key Considerations for Cities to Make Their Case



- In what areas does your region have a critical mass of talent?
- In which institutions and sectors is that talent concentrated?
- How connected are the key players?

City Portal—Global Top 50 Research Metro Regions

City Data Portal

View

Performance

Collaboration

Publications

Publications

International patent

Publications

Publications/capita

Publications/capita

Capital

Geography & Area

Productivity

Boston 

Research Performance

Publications per capita 2014

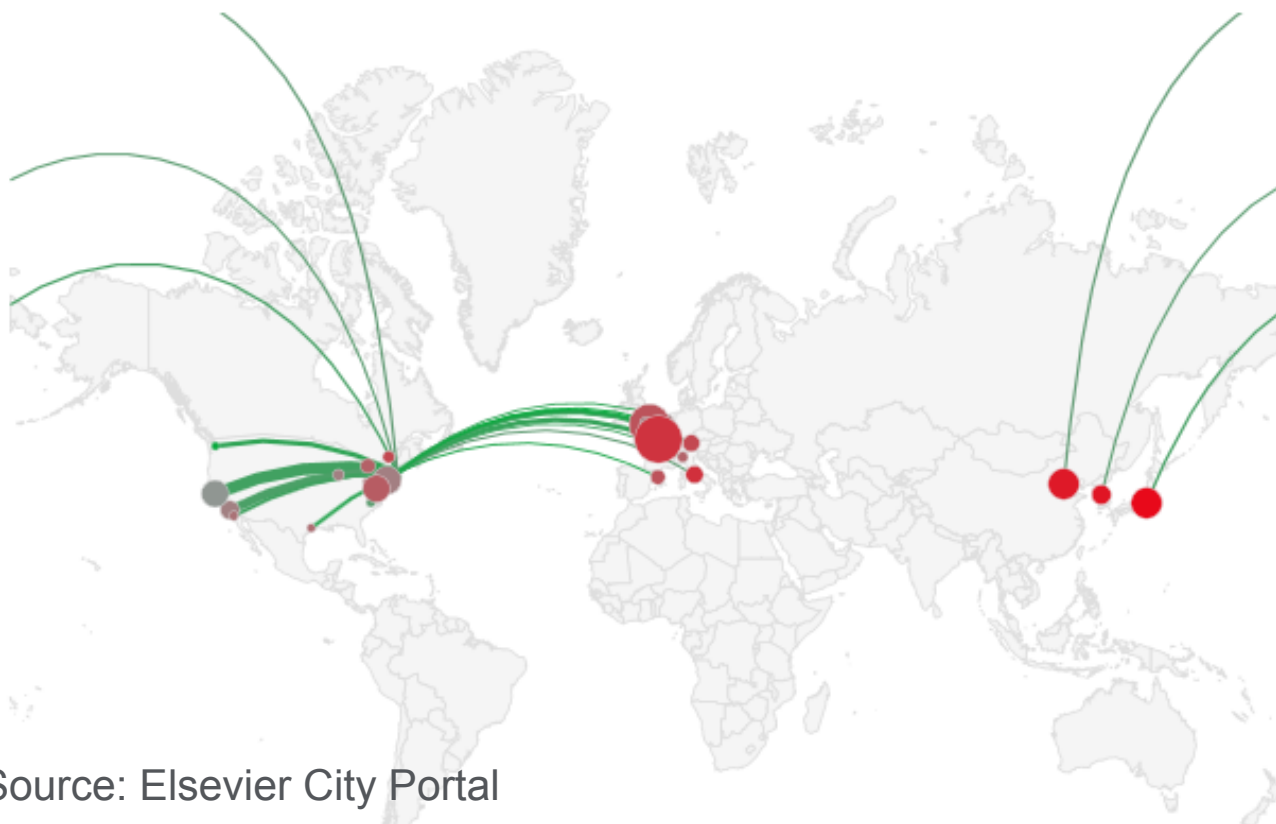
1.1813

Human Capital

Active researchers 2010-2014

360,186

Collaboration with other cities 2010-2014



Demographic

Population 2014

3,684,250

Innovation

Country patent applications/capita 2008

5.08

GDP & Productivity

GDP per capita 2014

84731.98

[show city definition](#)

Source: Elsevier City Portal

City Portal—Relative Research Impact—Materials Science

ERI Analytics City Data Portal

1. City Overview

2. Research Performance

- Publications
- National share of publications
- Citations
- **Relative Research Impact**
- Top percentages(%)
- Publications per capita
- Publications/researchers
- Downloads & FWDI

3. Research Collaboration

4. Innovation

5. Human Capital

6. Demographics & Area

7. GDP & Productivity

Research Performance - Relative Research Impact

FWCI of all publications with at least one author from specific city

Subject: ASJC 25 Materials Science

Set

Chart

Table

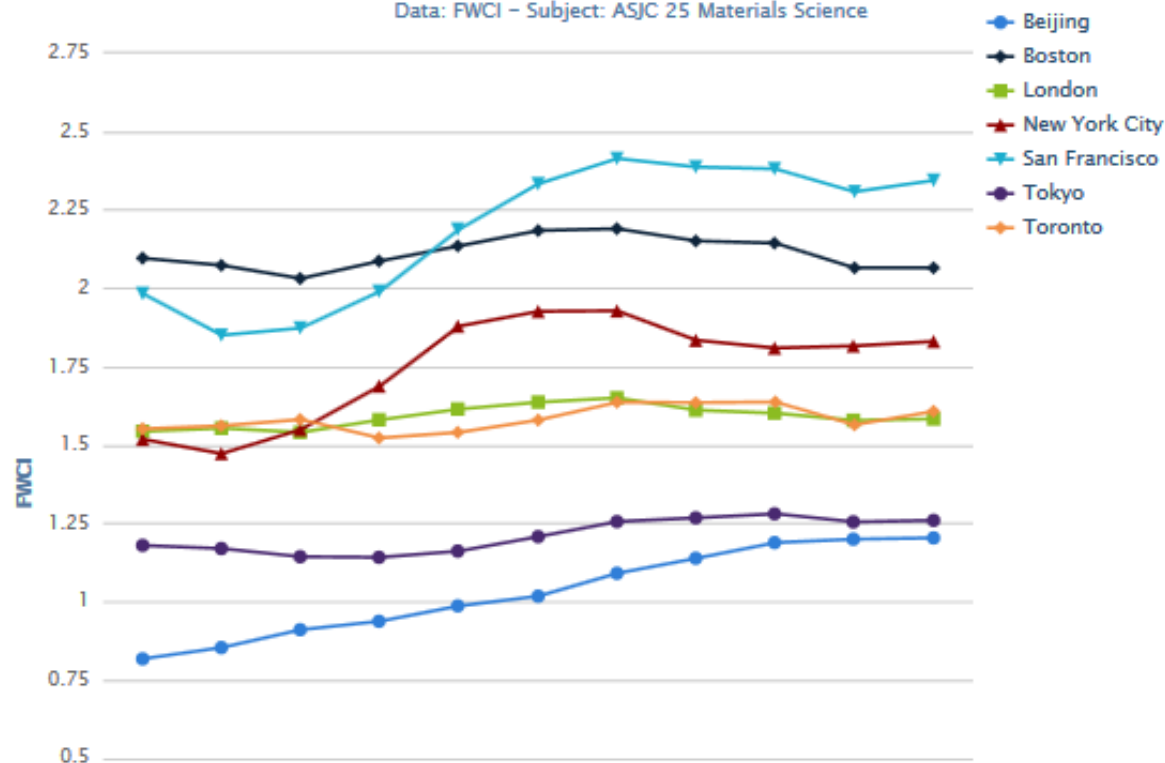
Map

File

Download Image

Relative Research Impact

Data: FWCI - Subject: ASJC 25 Materials Science



Overall City Competitiveness in 2025

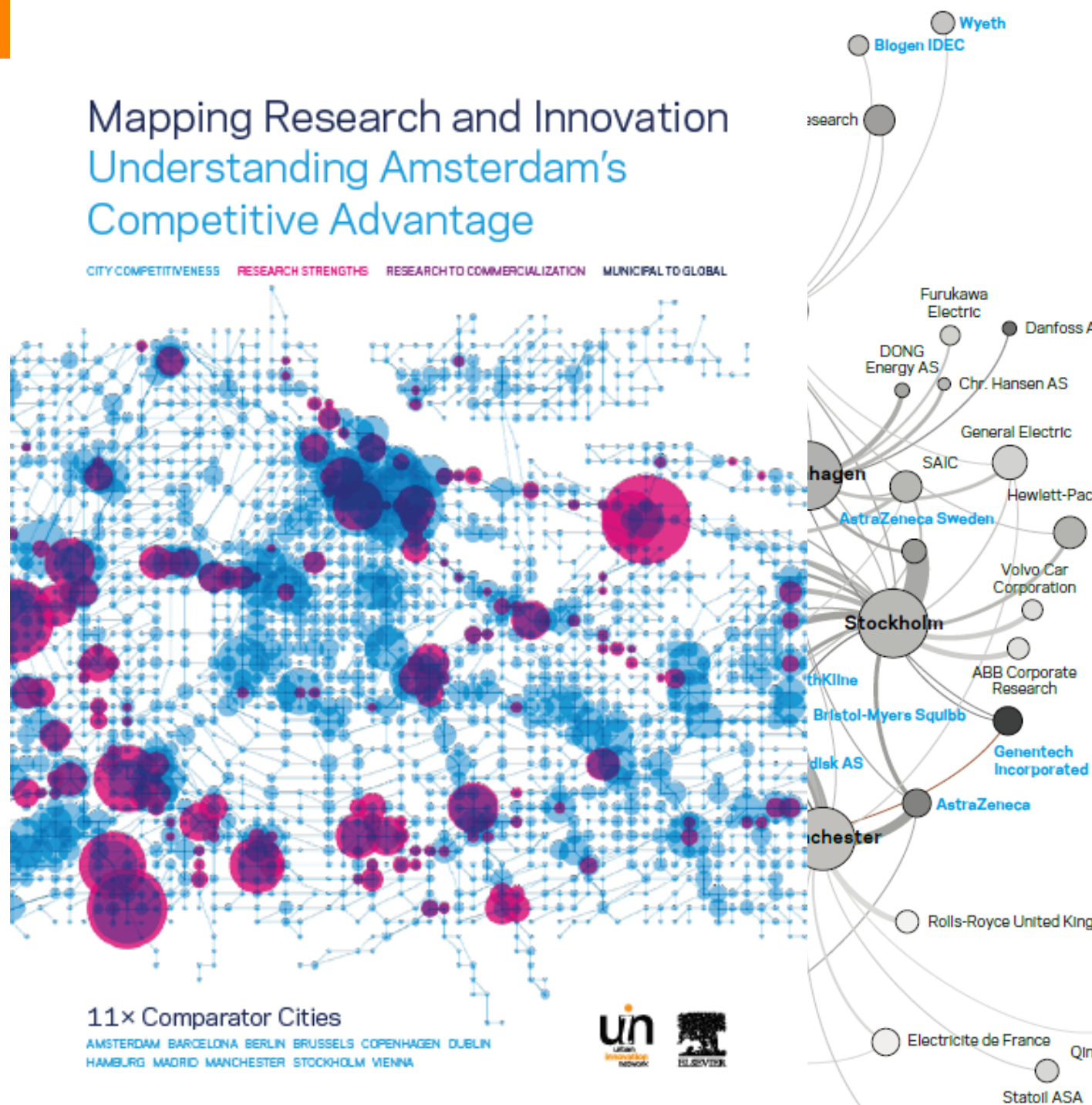
Rank 2025	Change from 2012	City	Score/100	Change from 2012
1	+1	New York	75.7	+7.1
2	+4	London	73.1	+5.3
3	-2	Singapore	71.2	+0.6
4	-1	Hong Kong	68.1	+0.1
5	-2	Tokyo	68.0	-0.1
6	+2	Sydney	67.3	+4.5
7	-2	Paris	67.0	-0.9
8	+5	Stockholm	65.7	
9	+3	Chicago	65.6	
10	-	Toronto	64.7	
=11	+14	Taipei	64.1	
=11	-4	Zurich	64.1	
13	-2	Amsterdam	63.8	
14	+3	Washington	63.2	

All these me
regions hav
globally
competitive
Top 100 rese
universities

Source: Economist Intelligence Unit, <http://www.citigroup.com/citi/citiforcities/pdfs/hotspots2025.pdf>

al analysis showed Amsterdam
s comparative advantage vs.
ers in biomedical research in
ns of overall field-weighted
tion impact

search Q: How are Amsterdam
l peer cities connected to major
sciences and other firms?



cross-sector collaboration networks

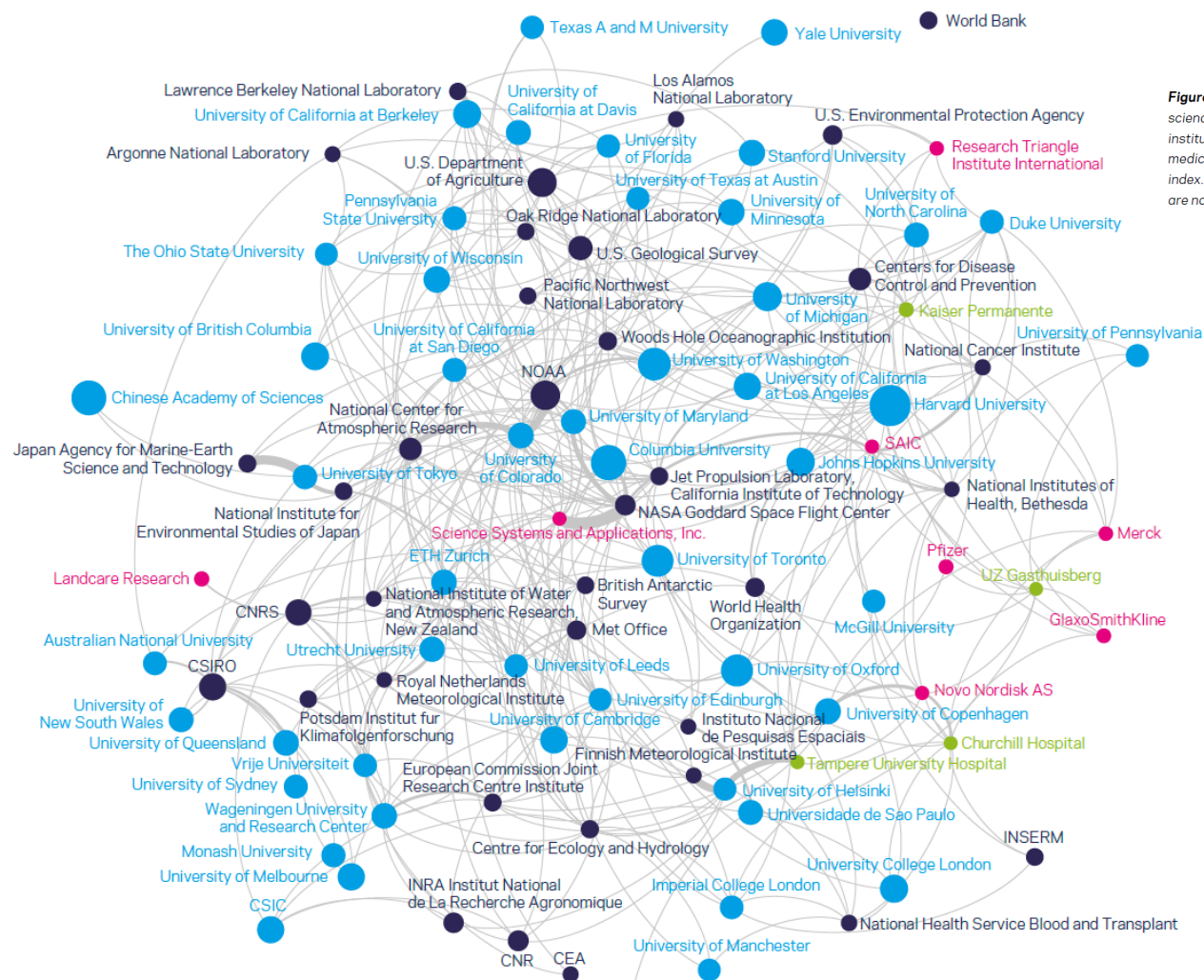
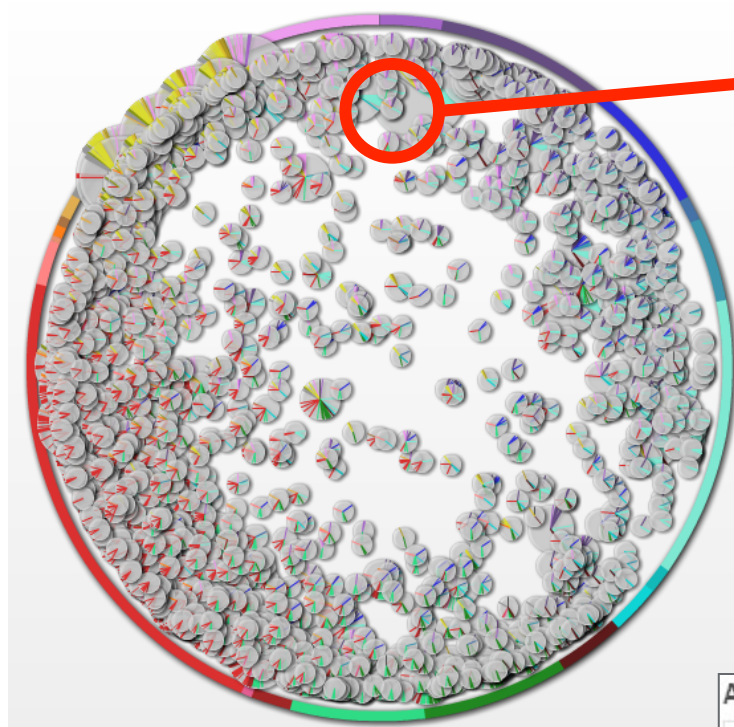


Figure 2.9 — Network map of top institutions in each sector; for the world; for sustainability science; for 2009-2013. The size of the nodes denotes the number of the publications of the institution. The color of the nodes denotes the sector of the institution (blue: academic; green: medical; dark blue: government; pink: corporate). The length of the edges denotes Salton's index. Nodes with less than 39 connections and edges with a Salton's index less than 0.025 are not shown. Force Atlas 2 algorithm is used for the layout.

Source: Elsevier and SciDev.Net (2015). Sustainability Science in a Global Landscape.
<http://www.elsevier.com/research-intelligence/resource-library/sustainability-2015>.

Val: Multi-Factor Analytics at Institutional and Smaller Scales

National/Global Context: The United States National Map of Research Strengths



Competency: DC #305

X

Articles published in this country:
1376

Authors in this country: Capasso F.;
Canedy C.L.; Vurgaftman I.

Keywords: cascade lasers; cascade
laser; quantum cascade

Disciplines:

Semiconducting Materials	68.8%
Applied Optics	28.6%
Combustion	1.3%

[More details »](#)

Top institutions in this Competency

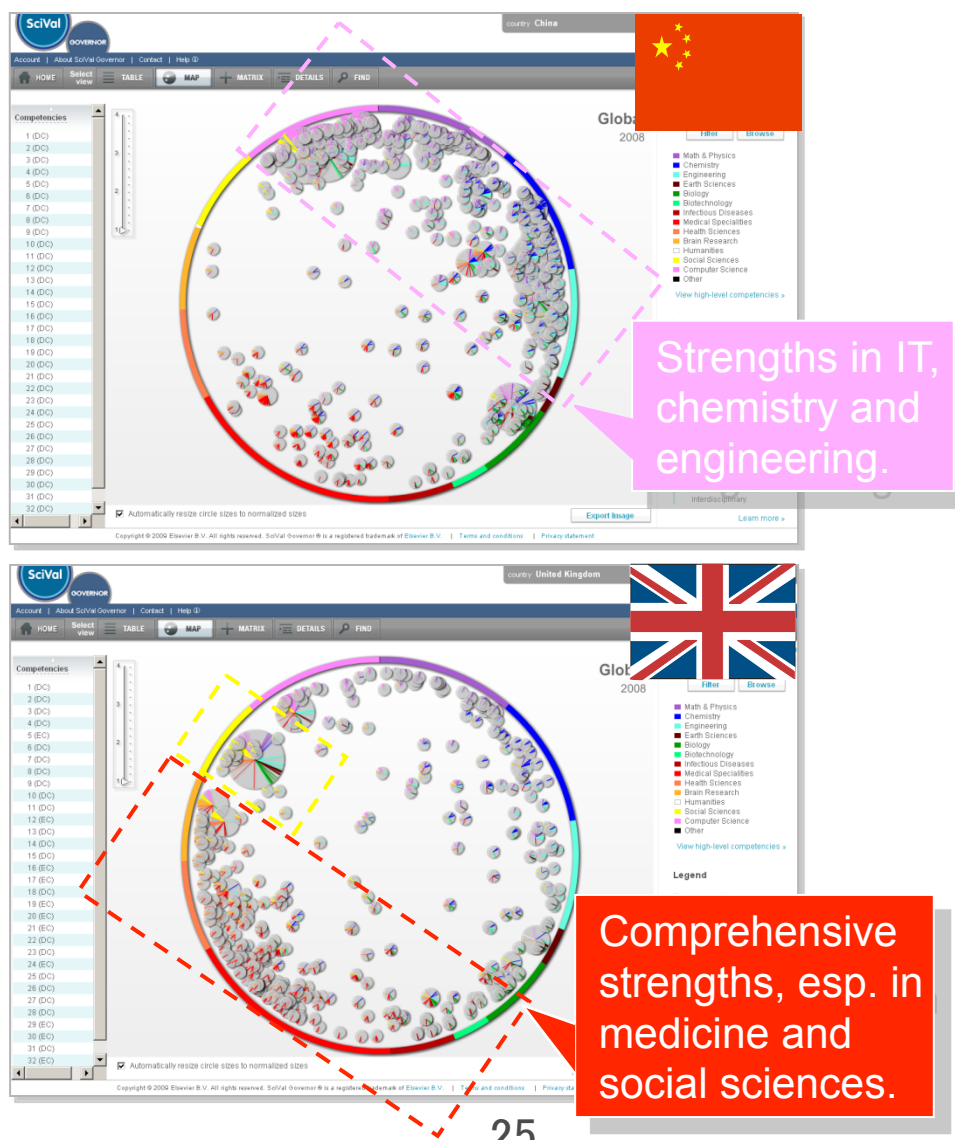
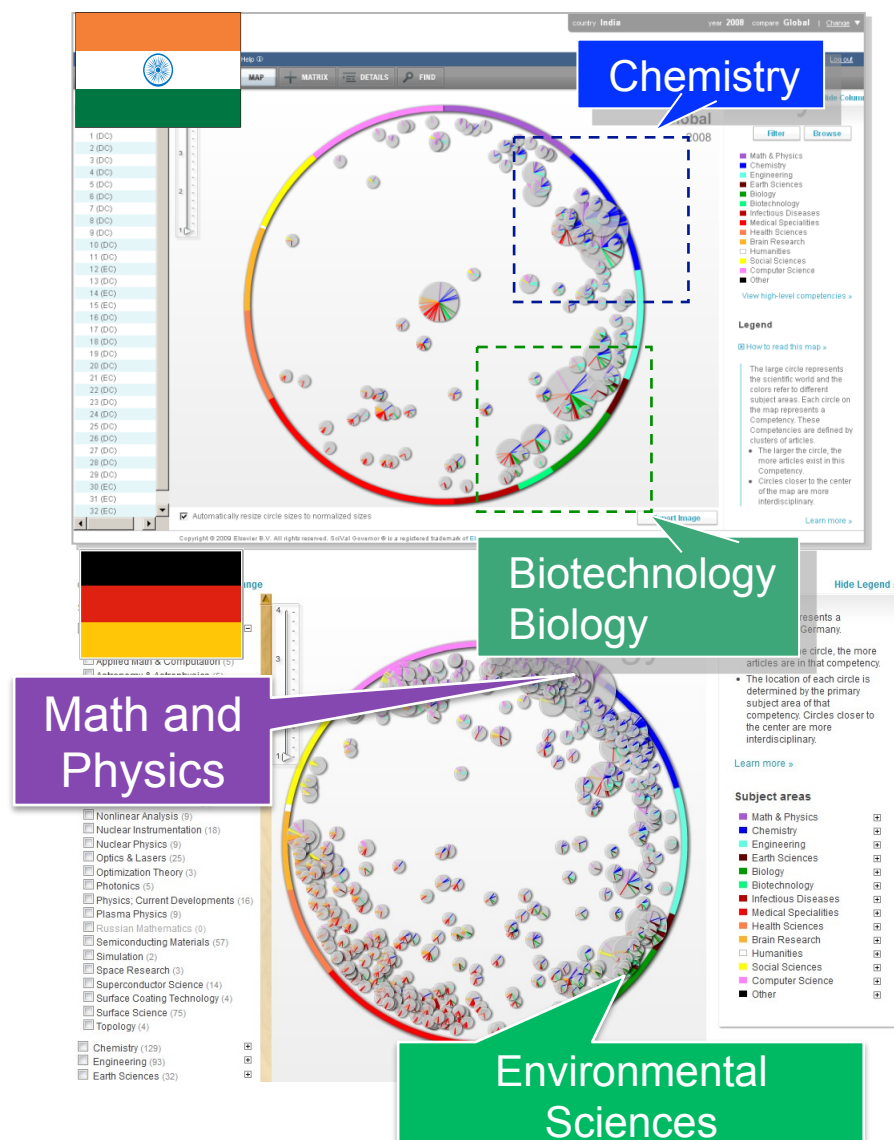
All institutions

Institution (Country)			Fractionalized articles	Total articles	RRS	SotA	Citation count
1.	Princeton University	USA	100.2	122	0.25	8.98	215.4
2.	Northwestern University	USA	89.1	98	0.90	9.63	791.5
3.	Naval Research Laboratory	USA	79.7	90	0.91	-15.60	385.5
4.	Harvard University	USA	79.7	103	1.10	7.71	741.6
5.	ETH Zurich	CHE	64.0	81	0.45	-21.68	535.5
6.	Vienna University of Technology	AUT	63.1	84	0.33	8.98	132.3
7.	University of New Mexico	USA	52.2	65	0.32	8.40	183.9
8.	Rice University	USA	51.0	61	0.33	-71.21	299.0
9.	Jet Propulsion Laboratory, Calif...	USA	50.3	58	0.45	-32.48	146.6
10.	Universite Montpellier II	FRA	46.2	60	0.28	9.62	220.1

2015 Circle of Science Map
for The United States

National/Global Context: National Maps of India, China, Germany and the UK

Other Nations

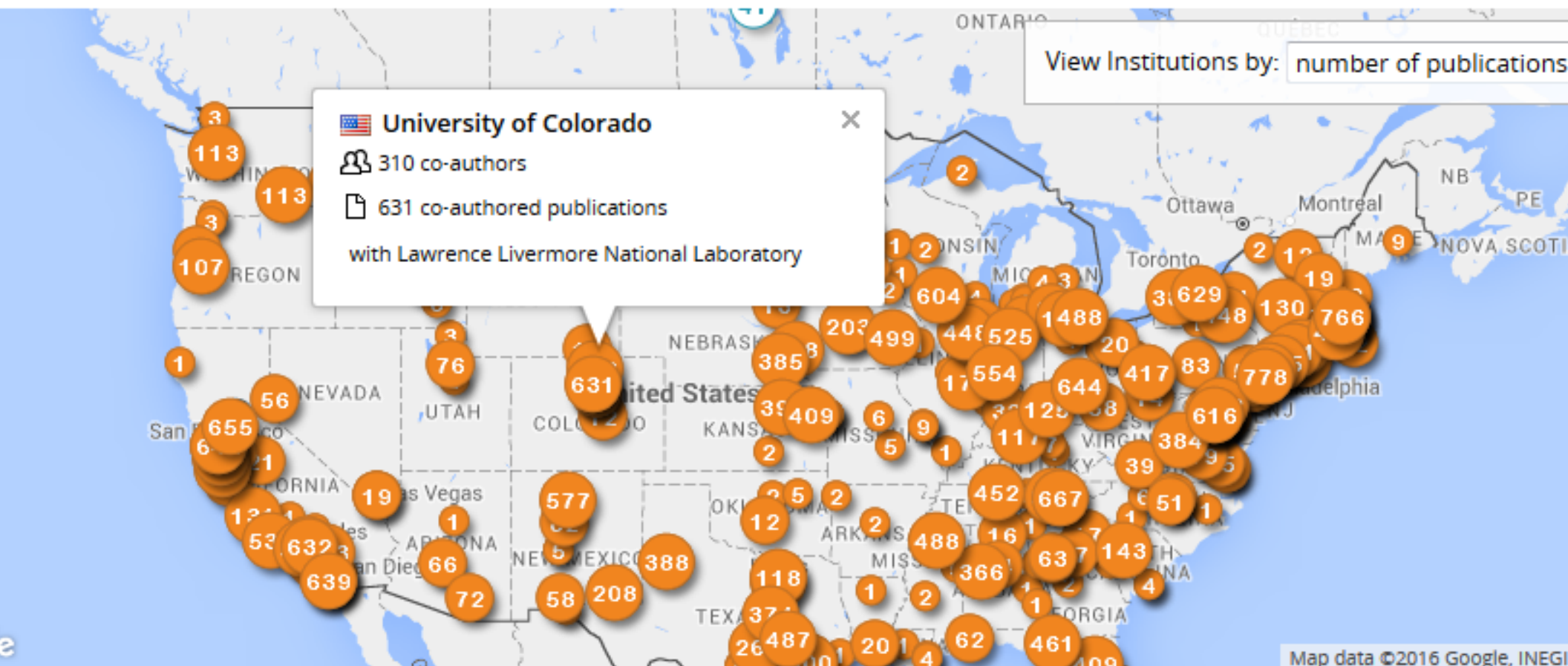


Institutional Collaboration Patterns: Lawrence Livermore Global Co-Authorship Network

Institutions collaborating with Lawrence Livermore National Laboratory

America ▾ United States ▾ All sectors ▾ ← Filter for more (regional) detail or [filter by field](#) at the top

Collaborating Institutions 5,027 co-authored publications

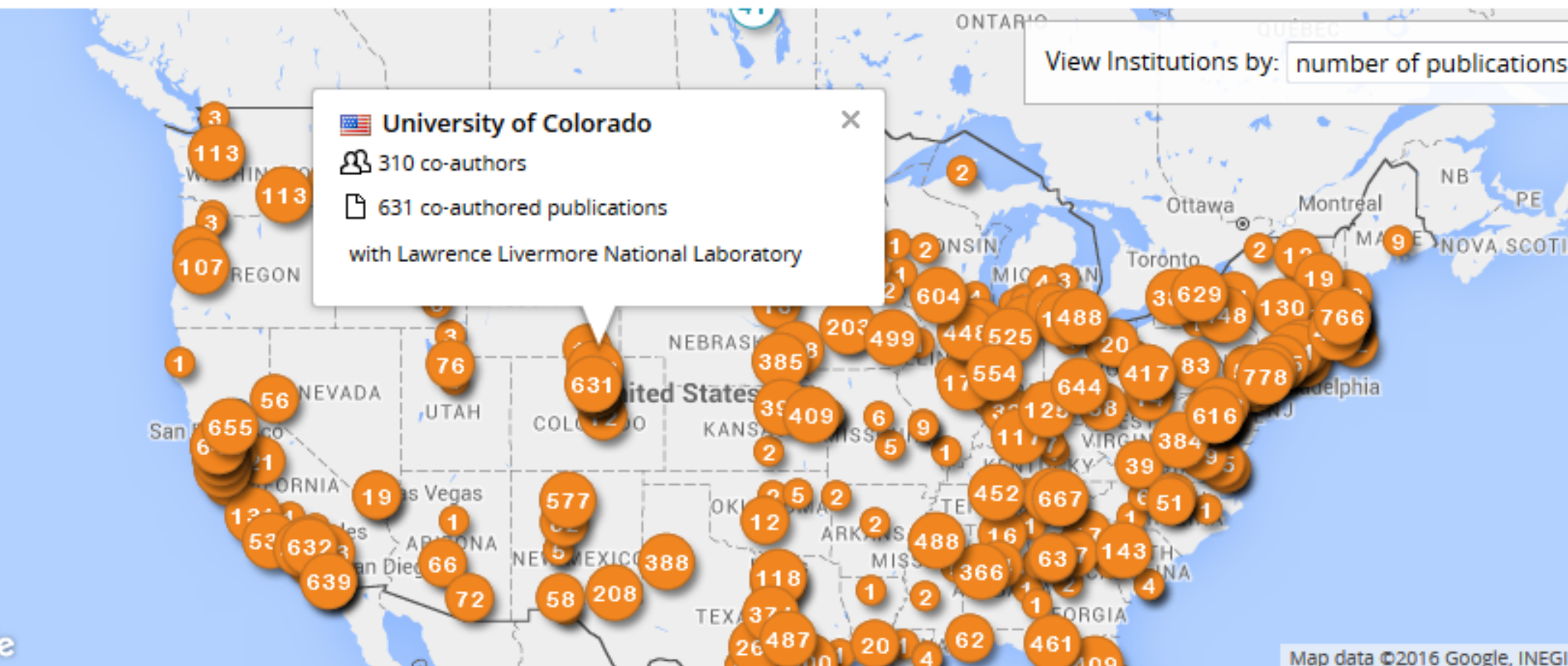


Institutional Collaboration Patterns: Lawrence Livermore Global Co-Authorship Network

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America ▾ United States ▾ All sectors ▾ ← Filter for more (regional) detail or [filter by field](#) at the top

Collaborating Institutions 5,027 co-authored publications



Traditional Impact Metrics – Citation and Publication Metrics

Lawrence Livermore National Laboratory

 United States | [More details on this Institution](#)

[View data sources](#)

2011 to 2015

no subject area filter selected

[ASJC](#)

Summary

Collaboration

Published

Viewed

Cited

Economic Impact

Authors

Competencies

Overall research performance



Download page as PDF

Export ▼

Publications

7,143 ▼

Citations

80,095

Authors

3,744 ▼

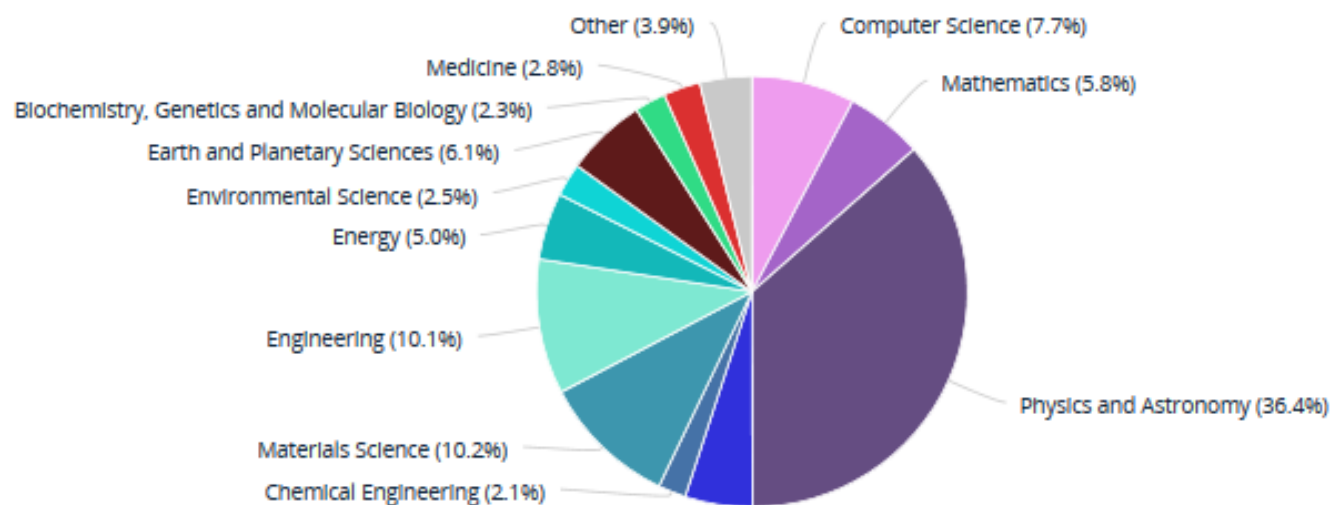
Field-Weighted Citation Impact

2.00

Citations per Publication

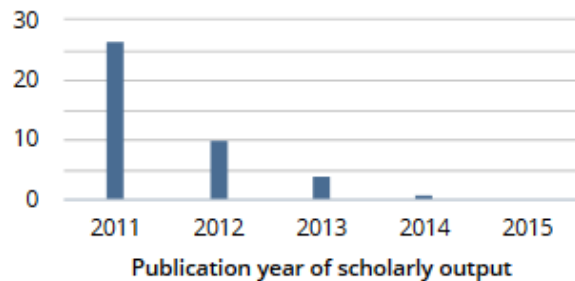
11.2

 [View list of publications](#)



Economic Impact Metrics--Patent Citations per 1000 publications by Institution

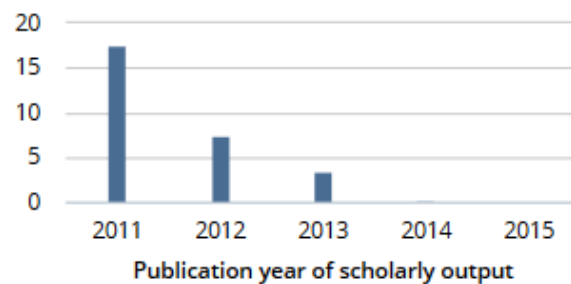
Patent-Citations per Scholarly Output



8.4

average patent-citations received per 1,000 scholarly outputs published by National Taiwan University

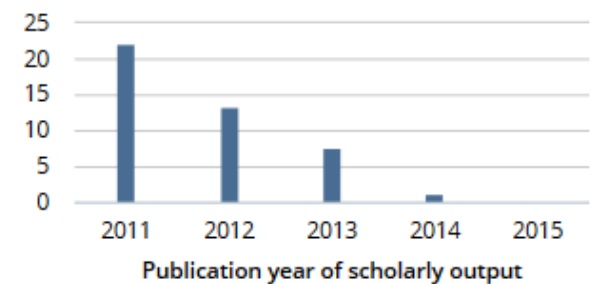
Patent-Citations per Scholarly Output



5.2

average patent-citations received per 1,000 scholarly outputs published by Tsinghua University

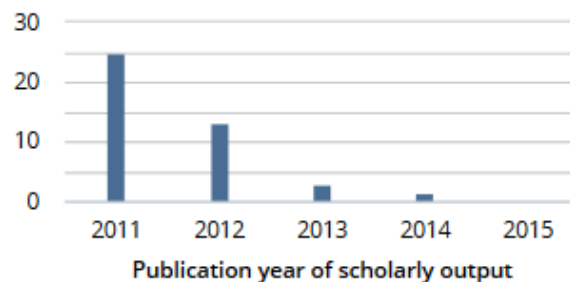
Patent-Citations per Scholarly Output



8.5

average patent-citations received per 1,000 scholarly outputs published by Nanyang Technological University

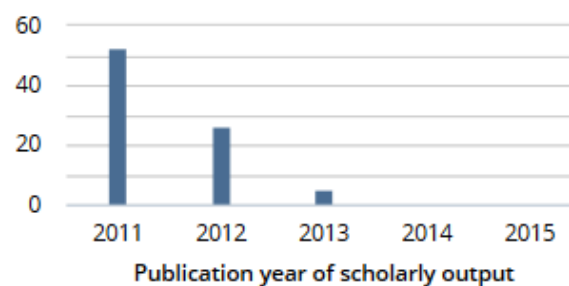
Patent-Citations per Scholarly Output



8.5

average patent-citations received per 1,000 scholarly outputs published by the University of Tokyo

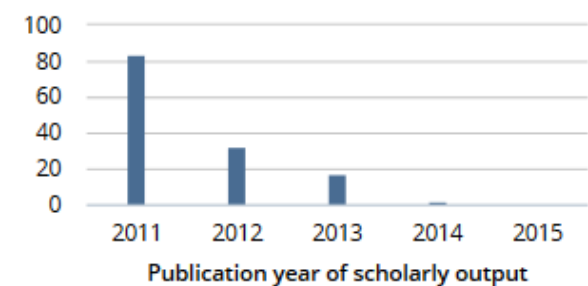
Patent-Citations per Scholarly Output



16.7

average patent-citations received per 1,000 scholarly outputs published by the Korea Advanced Institute of Science and Technology

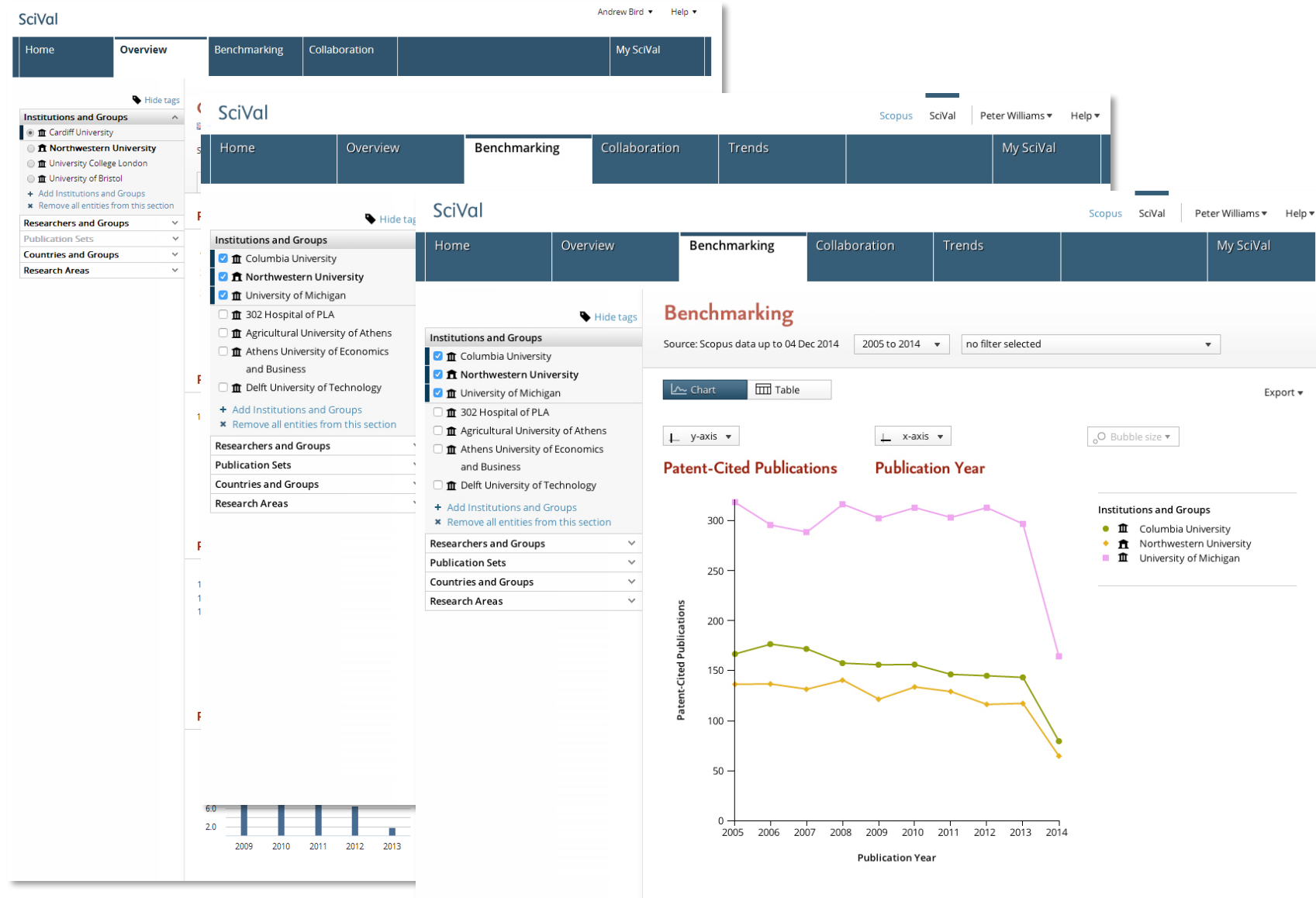
Patent-Citations per Scholarly Output



26.5

average patent-citations received per 1,000 scholarly outputs published by the Massachusetts Institute of Technology

Economic Impact Metrics – Patent-Cited Publications



Economic Impact and Collaboration Metrics – University-Industry Co-Authorship

SciVal

Scopus

SciVal

Daniel Calto ▾

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Collaboration

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Hide tags

Institutions and Groups

- ☒ Stanford University
- ☐ AAU - Association of American Universities
- ☐ Alaska
- ☐ Battelle
- ☐ Boeing
- ☐ California
- ☐ California Institute of Technology
- ☐ California State University Long Beach
- ☐ Carnegie Mellon University
- ☐ CEA
- ☐ Cornell University
- ☐ Florida Institute of Technology
- ☐ Google Inc.
- ☐ Harvard University
- ☐ Ivy League
- ☐ Kansas
- ☐ Kansas State University
- ☐ Korea Advanced Institute of Science and Technology
- ☐ Korea Institute for Advanced Study
- ☐ Korea University
- [+ Add Institutions and Groups](#)
- [* Remove all entities from this section](#)

Researchers and Groups ▾

Publication Sets ▾

Collaboration by Stanford University

 United States | [More details on this Institution](#)

Source: Scopus data up to 21 Sep 2015

2010 to 2014 ▾

no filter selected ▾

Current collaboration

Potential collaboration

Map

Table

Export ▾

Shortcuts ▾

Institutions collaborating with Stanford University

Worldwide ▾

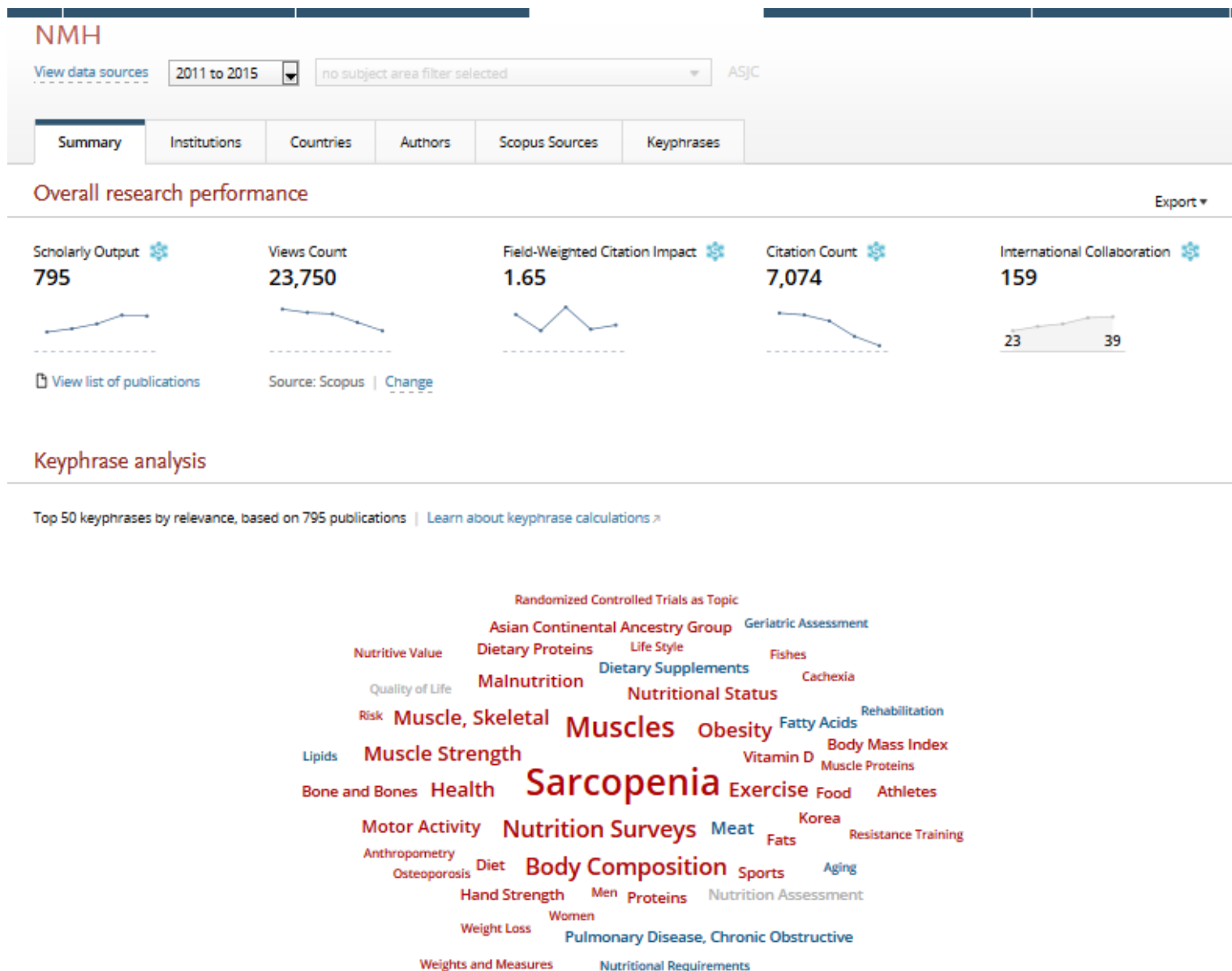
Corporate ▾

[reset filter](#)

203 collaborating Institutions

2,863 co-authored publications

Institution	Co-authored publications ▾	Co-authors at Stanford University	Co-authors at the other Institution	Field-Weight ▾
IBM	188 ▾	222 ▾	195 ▾	6.27
SRI International	182 ▾	266 ▾	145 ▾	2.16
Microsoft USA	146 ▲	116 ▲	146 ▲	5.19
Genentech Incorporated	132 ▲	213 ▾	284 ▲	5.24
General Electric	122 ▾	199 ▾	129 ▾	2.04
Google Inc.	106 ▲	140 ▲	123 ▲	4.58
Novartis	99 ▾	138 ▾	129 ▾	2.23
Intel	94 ▾	148 ▾	99 ▲	4.16



From Research Area Analysis—Nutrition and Muscular Health

NMH

[View data sources](#)

2011 to 2015

no subject area filter selected

ASJC

Summary

Institutions

Countries


Authors

Scopus Sources

Keyphrases

Top keyphrases

Exp

Top 50 keyphrases by relevance, based on 795 publications | [Learn about keyphrase calculations](#)AA Relevance | declining  growing (2011-2015)☒ Sarcopenia☐ Muscles☐ Nutrition Surveys☐ Body Composition☐ Exercise☐ Obesity☐ Muscle, Skeletal☐ Muscle Strength☐ Health☐ Malnutrition☐ Nutritional Status

Chart

Top contributors

Top contributors to the Research Area for the selected keyphrases:

Institutions

Top 5 by Scholarly Output

Yonsei University

10

Tufts University

8

Catholic University of Korea

6

Maastricht University

5

Monash University

5

Countries

Top 5 by Scholarly Output

South Korea

40

United States

34

Australia

12

Netherlands

11

United Kingdom

11

Authors

Top 5 by Scholarly Output

Cederholm, Tommy E.

5

Scopus Sources

Top 5 by Scholarly Output

Current Opinion in Clinical Nutrition and
Metabolic Care

9

Custom Research Areas--Usage Data – Heat Map of Abstract Downloads by Originating Institution

SciVal

Scopus

SciVal

Dan

Home	Overview	Benchmarking	Collaboration	Trends		My S
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- Hide tags
- Institutions and Groups
 - Researchers and Groups
 - Publication Sets
 - Countries and Groups
 - Research Areas
 - Cardiomyopathy
 - + Add Research Areas
 - * Remove all entities from this section

Cardiomyopathy

Source: Scopus data up to 21 Sep 2015

2010 to >2015

no filter selected

Summary

Institutions

Countries

Authors

Journals

Keyphrases

Top Institutions

Map Table Chart

Top 100 Institutions in this Research Area, by Scholarly Output

Worldwide

All sectors

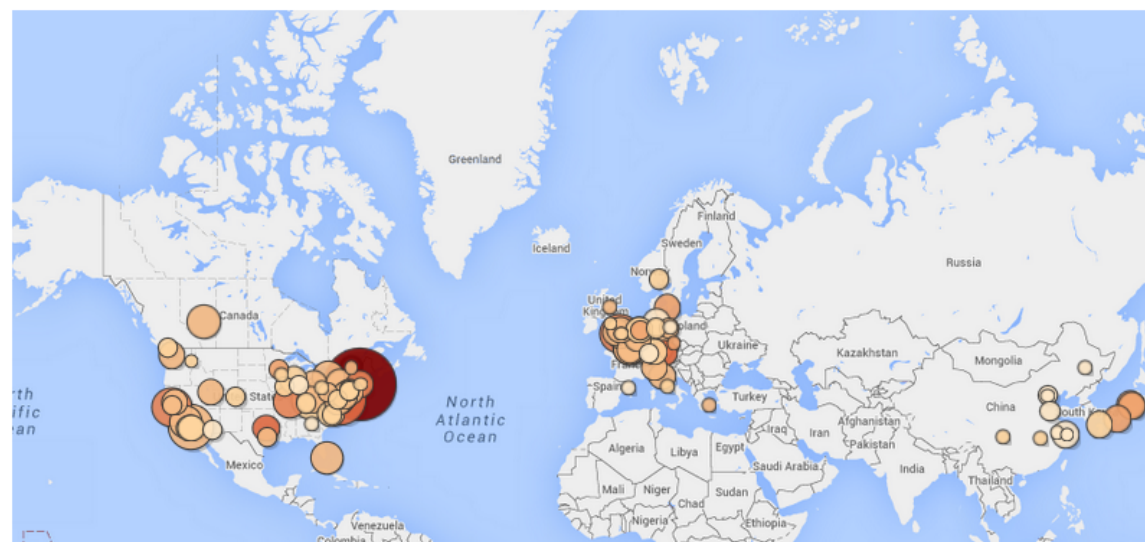
← Filter for more (regional) detail

Size: Outputs in Top Percentiles

total value

Color: Views Count

total value





re: Collaboration Portal and Research ormation System



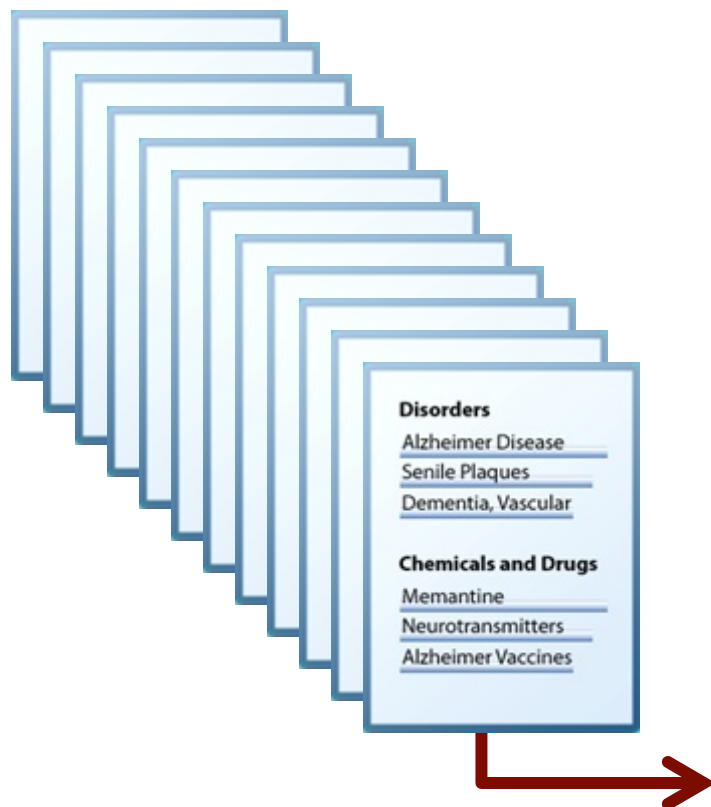
Collaboration and Discoverability Tool—Pure Experts Portal

Connecting
Expert to Expert



Connecting
Expertise to Opportunity

Semantic and NLP Technology--Elsevier Fingerprint Engine



Using advanced semantic technologies and natural language processing, we can generate a researcher's unique Fingerprint by aggregating the Fingerprints of each of their publication abstracts



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PURPOSE

▼

PARTNERSHIP

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PROGRESS □□□□

Find a Resource or Faculty Expert

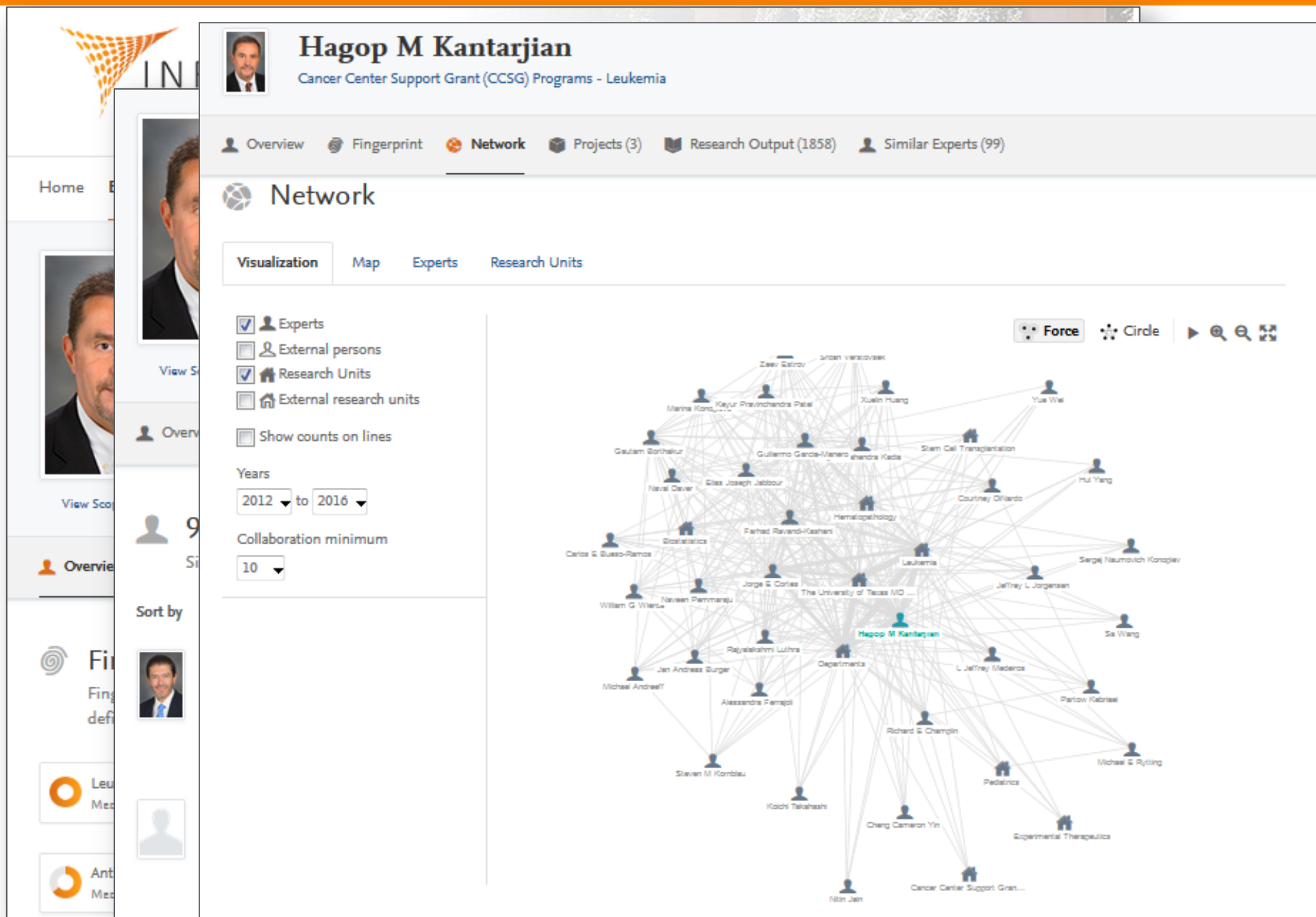
Influent's Experts Network gives you the power to search across all UT System campuses for

Take the Next Step and Connect

You've found the one—or ten, or twenty—experts that can help you. Now you need to connect.

Build a Productive Partnership

Find the resources and contacts on the Influent website to help you move from idea to reality.



Pure: Integrated Data Model Allows for Capture of All Aspects of the Research Lifecycle

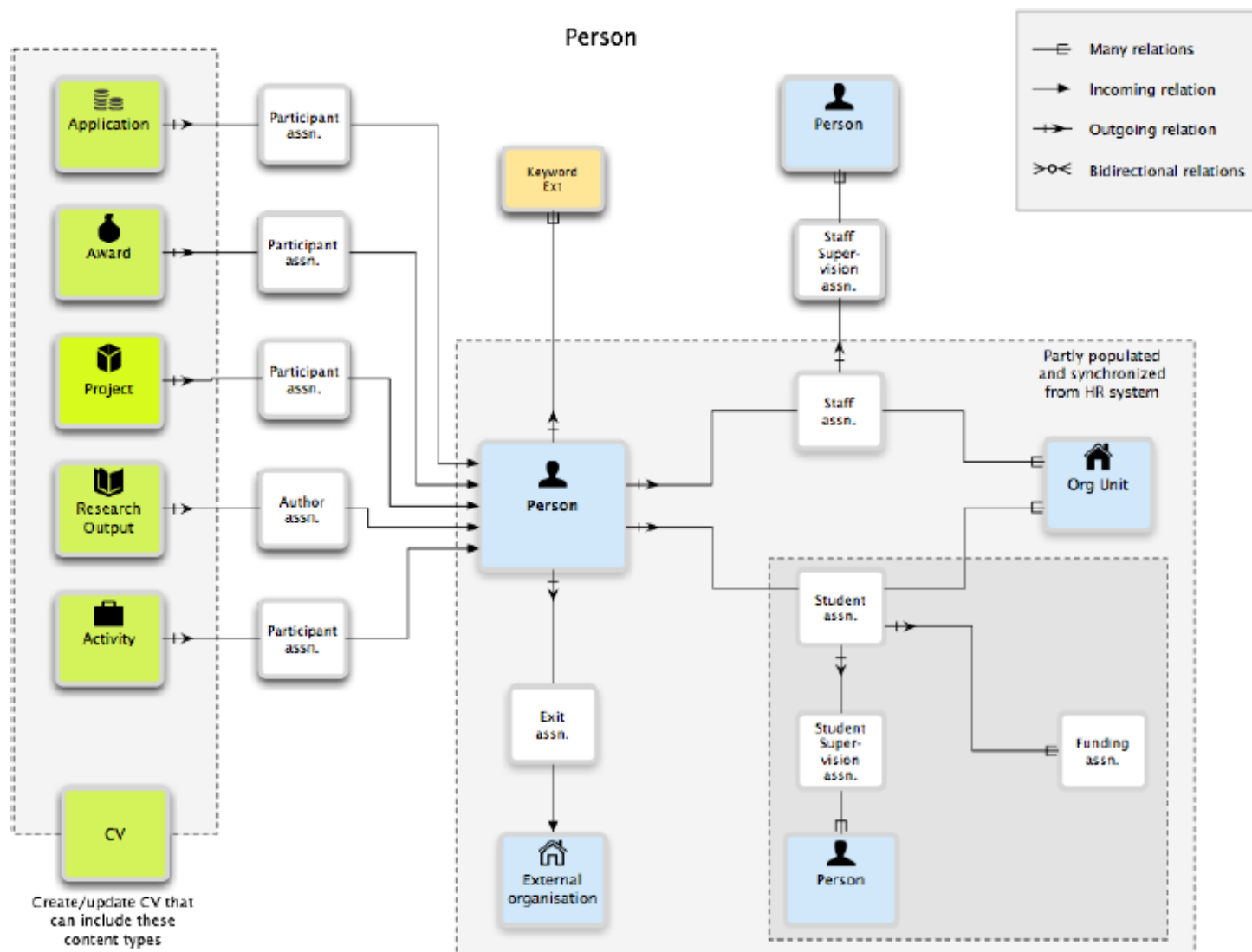


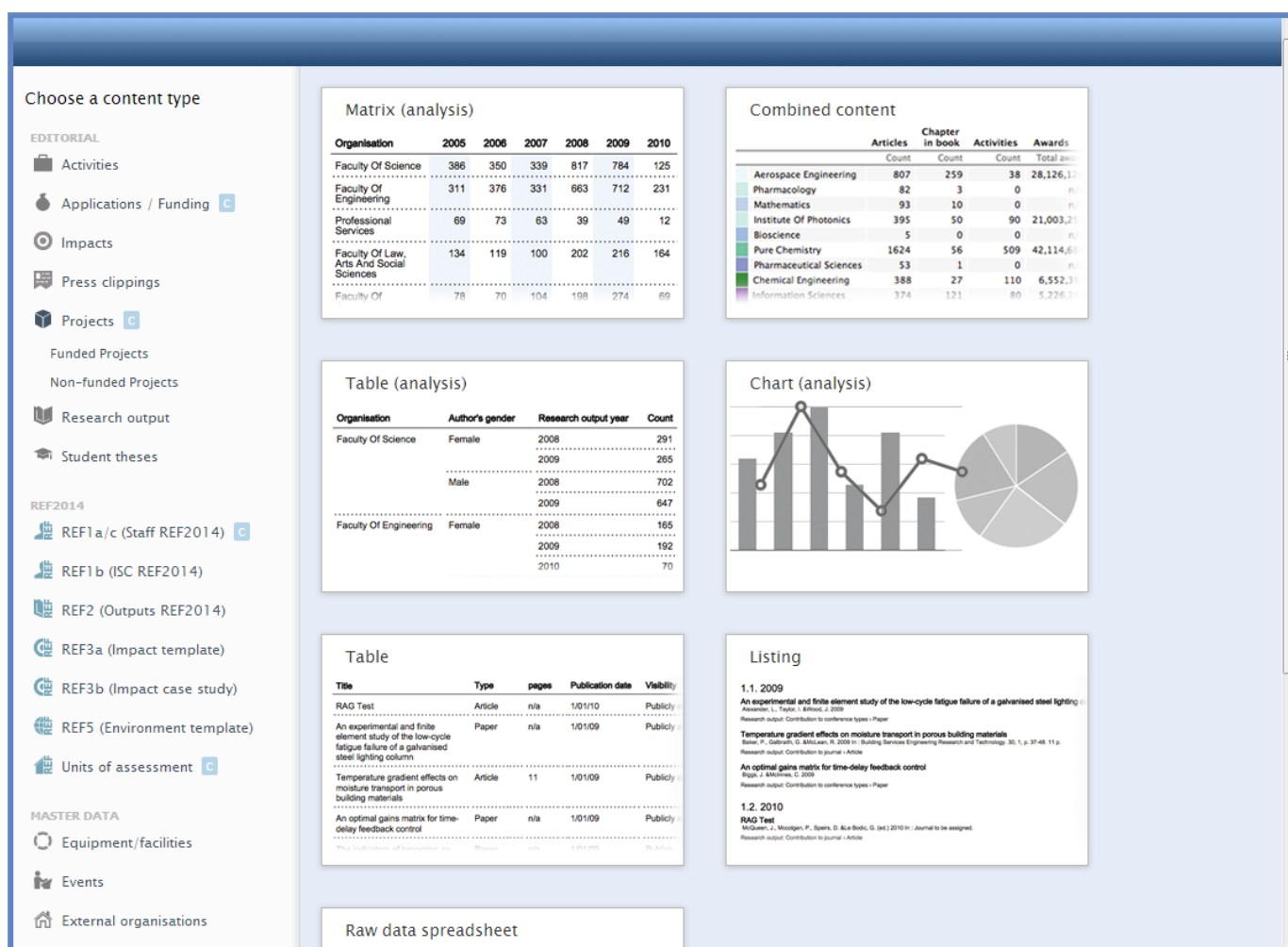
Illustration 2 – Persons' relations in Pure

Content Types in Pure

Persons; researchers, postgraduate students, external persons
Organizations; faculties, departments, research groups, external units
Publications; Peer-reviewed journal articles, books, chapters, theses, etc.
Publishers and journals; Names, IDs, ratings
Altmetrics; citations, impact factors, Altmetrics
Activities; Conference, boards, learned societies, peer reviewing
Funding opportunities; funder, programme, eligibility, etc.
Grant applications; stage, funder, programme, amount applied, documents attached
Ethical approvals; with all relevant documents attached
Contracts; funder, programme, amount, dates, contract docs, applicants
Projects; budget, expenditure, participants, collaborators, students, outputs
Assets; stored in Pure or in separate data store
Impact; narrative recordings of the impact of research – can be peer-reviewed
Equipment; type, placement, ownership details
Press clippings; national and international papers, electronic media

Our data model allows for unparalleled flexibility and ease of use in creating reports

Access controls ensure users can only view and report on the content relevant to them



Categorize data in order to support tailored reporting requirements

The screenshot shows a web application for managing the ASJC Scopus Subject Areas classification scheme. The interface is titled "Classification scheme - Pure 4.16.3" and has a sidebar with "EDIT" and "OVERVIEW" tabs. The "EDIT" tab is active, showing a "Metadata" section with fields for "URI" (set to "/dk/atira/pure/subjectarea/asjc"), "Type" (set to "Taxonomy"), and "Description" (set to "ASJC Scopus Subject Areas"). Below the metadata is a "Classifications" section listing various subject areas and their relationships. The list includes "General", "Agricultural and Biological Sciences(all)", "Agricultural and Biological Sciences (miscellaneous)", "Agronomy and Crop Science", "Animal Science and Zoology", "Aquatic Science", "Ecology, Evolution, Behavior and Systematics", "Food Science", "Forestry", "Horticulture", "Insect Science", "Plant Science", and "Soil Science". Each entry has a corresponding "Add relation..." and "Edit" button, along with a small icon indicating its position in the hierarchy.

Classification	URI	Relationships
General	/dk/atira/pure/subjectarea/asjc/1000	Add relation... Edit
Agricultural and Biological Sciences(all)	/dk/atira/pure/subjectarea/asjc/1100	Add relation... Edit
→ Agricultural and Biological Sciences (miscellaneous)	/dk/atira/pure/subjectarea/asjc/1100/1100	Add relation... Edit
→ Agronomy and Crop Science	/dk/atira/pure/subjectarea/asjc/1100/1101	Add relation... Edit
→ Animal Science and Zoology	/dk/atira/pure/subjectarea/asjc/1100/1102	Add relation... Edit
→ Aquatic Science	/dk/atira/pure/subjectarea/asjc/1100/1103	Add relation... Edit
→ Ecology, Evolution, Behavior and Systematics	/dk/atira/pure/subjectarea/asjc/1100/1104	Add relation... Edit
→ Food Science	/dk/atira/pure/subjectarea/asjc/1100/1105	Add relation... Edit
→ Forestry	/dk/atira/pure/subjectarea/asjc/1100/1106	Add relation... Edit
→ Horticulture	/dk/atira/pure/subjectarea/asjc/1100/1107	Add relation... Edit
→ Insect Science	/dk/atira/pure/subjectarea/asjc/1100/1108	Add relation... Edit
→ Plant Science	/dk/atira/pure/subjectarea/asjc/1100/1109	Add relation... Edit
→ Soil Science	/dk/atira/pure/subjectarea/asjc/1100/1110	Add relation... Edit

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Save

Vis en menu

Track, monitor and manage the entire research grant lifecycle

Consolidate pre- and post-award management: Enter and route funding opportunities, process applications, and manage awards and related projects, all in Pure

The screenshot displays the 'Pure' system interface for the University of Europe, specifically the 'Award management' section. The interface is divided into three main panels: 'Milestones', 'Projects', and a right-hand sidebar.

Milestones Panel: This panel is organized into three categories: 'Missed', 'Upcoming', and 'Completed'.

- Missed:** Shows a single entry for 'Yearly report, 2013' with a date of '1 Jan' and a description 'Understanding the impact of the microvas...'. It is marked as missed with a red icon.
- Upcoming:** Lists several reports with dates and descriptions, including 'Internal report, 2013' (31 Dec), 'Internal report, 2014' (31 Dec), 'Internal report, 2015' (1 Mar), 'Yearly report, 2014' (1 Jan), 'Yearly report, 2015' (1 Jan), and 'Yearly report, 2016' (1 Jan). These are marked as upcoming with orange icons.
- Completed:** Shows reports that have been completed, including 'Internal status report, 2012' (31 Dec), 'Internal status report 2011' (31 Dec), and 'Final report to funder' (1 Feb). These are marked as completed with green icons.

Projects Panel: This panel displays a list of active projects, each with a title, project type, and key metrics.

- 2011-DTG-Funding 3 Studentships:** Project: Other. Status: Running. Metrics: 235,848 GBP budgeted, 202,524 GBP spent, 2,340 hours allocated (813 used, 1,527 remaining).
- Computer to Clinic: Personalised Fluid-Mechanical Models Applied to Heart Failure:** Project: Research. Status: Running. Metrics: 557,098 GBP budgeted, 541,712 GBP spent, 5,000 hours allocated (520 used, 4,480 remaining).
- Industrial Impact Fellowship in Drug Discovery:** Project: Research. Status: Running. Metrics: 31,005 GBP budgeted, 35,916 GBP spent, 100 hours allocated (128 used, 0 remaining).
- OSCAR – Oceanographic and Seismic Characterisation of heat dissipation and alteration by hydrothermal fluids at an Axial Ridge:** Project: Research. Status: Running. Metrics: 31,005 GBP budgeted, 35,916 GBP spent, 100 hours allocated (128 used, 0 remaining).

Right-hand Sidebar: Contains a search bar, a user profile (root), a 'Switch user' button, a 'Log out' button, and a notification icon showing 0 notifications.

ORCID/Sherpa RoMEO Integration—Use ORCID ID's Directly and Identify the OA Journal Status in the System

The screenshot displays the 'Pure' system interface for the University of Europe. The top navigation bar includes the 'Pure' logo, 'University of Europe', a search bar, and user options like 'root', 'Switch user', and 'Log out'. Below this, a secondary navigation bar lists various roles: Editor, Master data, REF2014, Dashboard, Award management, and Administrator.

The main content area is titled 'Editorial overview' and features a sidebar on the left with navigation links: Research output (83), My research output (0), Persons with import candidates (0), Claimed/disclaimed research outputs (1), Research output with documents (0), Duplicate title (0), Duplicate ISBN (0), Duplicate DOI (0), Activities, Press clippings, Impacts, Applications, Awards, Projects, and Report definitions.

The central panel shows a search bar for 'research output...' and tabs for 'SHERPA/RoMEO' and 'My content'. Under 'Selected SHERPA RoMEO colours', there is a yellow box with the instruction 'Please select one or more SHERPA RoMEO colours below to filter' and radio buttons for Green, Blue, Yellow, and White. Below this, the 'Limit document status to' section has radio buttons for All (selected), With documents, and Without documents.

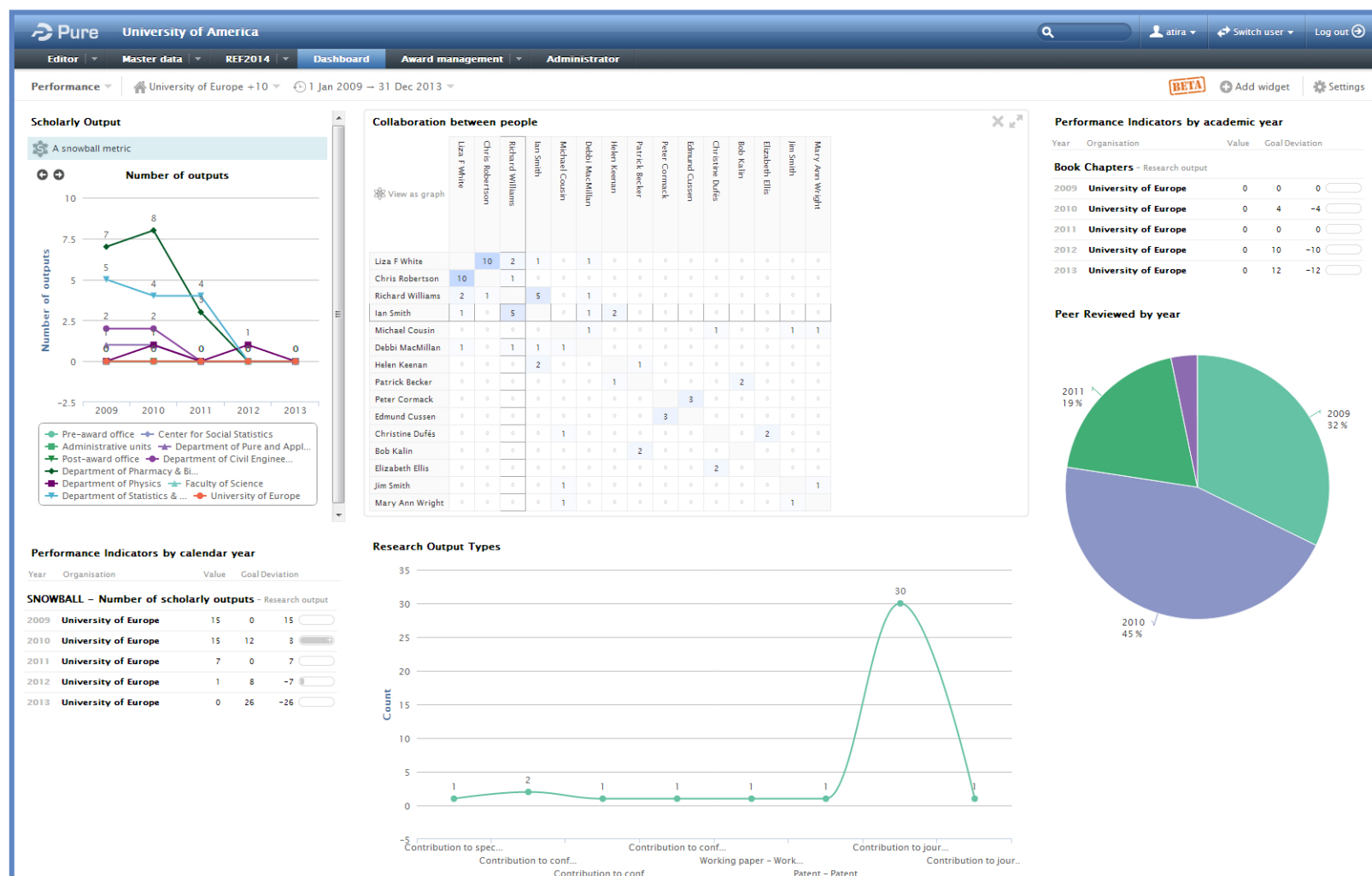
The results section shows '1 - 83 out of 83' items, sorted by 'Modified date'. Two publications are visible:

- The use of mammalian cell lines to investigate the role of aldo-keto reductases in the detoxication of aldehydes and ketones**
Gardner, R., Kazi, S. & Ellis, E. 2004 *ALDO-KETO REDUCTASES AND TOXICANT METABOLISM*. Penning, T. M. & Petrash, J. M. (eds.). WASHINGTON: American Chemical Society, p. 183-196 14 p.
Research output: Chapter in Book/Report/Conference proceeding > Chapter
PUBLISHED
- Connecting closed world research information systems through the linked open data web**
Joerg, B., Ruiz-Rube, I., Sicilia, M-A., Dvorák, J., Jeffery, K., Rasmussen, H. S., Vestdam, T. & Smith, J. 1 May 2012 In : *International Journal of Software Engineering and Knowledge Engineering*. 22, 3, p. 345-364 20 p.
Research output: Contribution to journal > Article
PUBLISHED

At the bottom, there is a 'Download list' section with links for PDF, Excel, HTML, RIS (RefMan), Word, and BibTeX. On the right side, there is a green 'Add new' button, a 'My messages' section showing 0 messages, and a 'Help and support' link.

Customizable dashboards provide administrators with an overview of strategically important metrics

Dashboards enable administrators to assess research progress over time



Role- and Rights-based security-- ensure transparency with complete audit logs

The screenshot displays the 'Pure' University of Europe Administrator interface. The top navigation bar includes the 'Pure' logo, 'University of Europe', a search bar, and user controls for 'root', 'Switch user', and 'Log out'. The main navigation menu on the left lists various system components, with 'Audit' currently selected. The central panel shows the 'Audit' log with search filters for Username (root), Content-ID, Start date (02/10/2012), and End date (02/10/2012). The log entries are sorted by Date and show a list of operations and their corresponding audit details. The right sidebar provides a summary of editorial tasks and messages.

Operation	Audit
2/10/12 9:52 config:change success	Configuration value RoMEO_checkJournalTitle changed Configuration value RoMEO_checkJournalTitle changed from "null" to "true". root ▼ XML <pre><?xml version="1.0" encoding="UTF-8"?> <configChange> <valueChange key="RoMEO_checkJournalTitle"> <before/> <after>true</after> </valueChange> </configChange></pre> Audit XML formatted
2/10/12 9:52 authentication- event:Authentication SuccessEvent success	Authentication successful: root org.springframework.security.ui.WebAuthenticationDetails@ffffc434: RemoteIpAddress: 10.10.70.126; SessionId: C633E4714F2789E5ACDE8C5EC86F78A1 root
2/10/12 0:00 preservedContent:cr eateFile failed error	File Document(id=55017, size=199638, fileName=Excellence_in_Research_award_2011.docx) in content Award(id=55014, title=Excellence in Research award 2011) storage in local failed. Error was: Unable to store file in repository root Content-ID: 55014 ► XML Audit XML formatted
2/10/12 0:00 preservedContent:u pdate success success	Content Award(id=55014, title=Excellence in Research award 2011) updated in local (store id null) root Content-ID: 55014

My editorial tasks

- Research output: 4
- Press clippings: 1
- External person: 475
- External organisations: 161
- Journals: 55
- Publishers: 2
- REF1a/c (Staff REF2014): 1
- Claimed/disclaimed research outputs: 1
- Staff not related to an UoA: 1

My messages

Messages: 0

My favourites

- Research output: 2
- Classification schemes: 1

[Help and support](#)